

APPENDIXES

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APPENDIX A: The Seven Basic Tables, 1998

Appendix A includes the following seven tables:

- A-1 Number of Doctorate Recipients, by Sex and Subfield, 1998
- A-2 Number of Doctorate Recipients, by Citizenship, Race/Ethnicity, and Subfield, 1998
- A-3 Statistical Profile of Doctorate Recipients, by Major Field, 1998
- A-4 Statistical Profile of Doctorate Recipients, by Race/Ethnicity and Citizenship, 1998
- A-5 Sources of Graduate School Support for Doctorate Recipients, by Broad Field and Sex, 1998
- A-6 State of Doctoral Institution of Doctorate Recipients, by Broad Field and Sex, 1998
- A-7 Institutions Granting Doctorates, by Major Field, 1998

TABLE A-1 and TABLE A-2: Tables A-1 and A-2 display data for the most recent year by subfield of doctorate. Field groupings may differ from those in reports published by Federal sponsors of the Survey of Earned Doctorates (SED). The “general” field categories—e.g., “chemistry, general”—include individuals who either received the doctorate in the general subject area or did not indicate a particular specialty field. The “other” field categories—e.g., “chemistry, other”—include individuals whose specified doctoral discipline was not among the specialty fields listed.

Table A-1 presents data by doctoral specialty and sex. Table A-2 displays doctoral specialty by citizenship and race/ethnicity. For a detailed description of the racial/ethnic variable, see the explanatory note for Table A-4.

TABLE A-3: Table A-3 is composed of three 2-page tables. The first table (A-3a) includes data on *all* research doctorate recipients from the most recent year; the other two tables (A-3b and A-3c) present the same data by sex. Field groupings may differ from those in reports published by Federal sponsors of the SED. Terms requiring definition are as follows:

- *Percentage with Master's*: The percentage of doctorate recipients in a field who received a master's degree in any field before earning the doctorate.
- *Median Age at Doctorate*: One-half received the doctorate at or before this age. A recipient's age is obtained by subtracting the month/year of birth from the month/year of doctorate. (See note on next page.)

— *Median Time Lapse*: “Total Time” refers to the total calendar time elapsed between the month/year of baccalaureate and the month/year of doctorate. “Registered Time” refers to the actual time in attendance at colleges and universities between receipt of the baccalaureate and the doctorate.

NOTE about medians: *The method of computing medians has been revised. Beginning with Summary Report 1994, months (of birth, baccalaureate, and doctorate) are included in the calculations; medians presented in earlier reports were based only on years. Some medians would be the same regardless of the method of computation, but the new method generally computes slightly different results than are obtained by the old method. While variation is small (usually one or two decimal places), the reader should consider these differences when comparing medians presented in this report with those in earlier reports.*

— *Postgraduation Plans*: Each year’s doctorate recipients provide information on post-graduation employment or study plans in response to items B1 through B9 on the survey form. Since the questionnaire is filled out around the time the doctorate is awarded, a recipient’s plans are subject to change. However, comparisons with the longitudinal Survey of Doctorate Recipients (SDR) have shown SED data to be a reasonable indicator of actual employment status in the year following the doctorate, although results vary by sector. (The SDR is a follow-up employment survey of a sample of doctorate recipients in science, engineering, and, until 1995, humanities fields.)

In Table A-3 the postgraduation plans of doctorate recipients are grouped as follows: “Postdoctoral Study Plans” (fellowship, research associateship, traineeship, other), “Planned Employment after Doctorate” (educational institution, industry, etc.), and “Postdoctoral Plans Unknown.” These categories include recipients who were still negotiating or seeking positions at the time of survey completion, as well as those whose plans were definite. The sum of these lines equals 100 percent for each column, with allowance for rounding: for example, 28.0 percent of all psychology doctorate recipients had postdoctoral study plans, 54.2 percent planned to be employed, and 17.8 percent did not report their post-graduation plans, totaling 100 percent. The study rows is further subdivided by type of study or appointment (fellowships, research associateships, traineeships, and other study). The percentages in these subdivisions sum to the percent of respondents in the given column who reported plans for postdoctoral study. The employment row is similarly subdivided by type of employer. The percentages for these rows add to percentage of respondents in the given column who planned employment. The category for educational institutions includes elementary and secondary schools as well as colleges and universities, and the category for government includes military service.

The four lines of data beginning with “Definite Postdoctoral Study” distinguish between individuals who had definite postgraduation plans at the time of survey completion (item B1: “Am returning to, or continuing in, predoctoral employment” or “Have signed contract or made definite commitment”) and those who were still seeking employment or postdoctoral study (item B1: “Am negotiating with one or more specific organizations,” “Am seeking position but

have no specific prospects,” or “Other”). These four lines, when added to the prior line, “Postdoctoral Plans Unknown,” total 100 percent with allowance for rounding. The two lines “Definite Postdoctoral Study” and “Seeking Postdoctoral Study” add to give the percentage for “Postdoctoral Study Plans”; the two lines “Definite Employment” and “Seeking Employment” add to give the percentage for “Planned Employment After Doctorate.”

Percentages showing the distribution of doctorate recipients by postdoctoral work activity and region of employment are based only on the number of recipients who had *definite employment commitments* at the time they completed the questionnaire. These percentages exclude recipients who planned postdoctoral study (as described above) and recipients who were still *seeking* employment at the time they completed the questionnaire. (Note that the rows on specific postdoctoral study and employment plans discussed earlier include individuals whose plans were *not definite*.) Revisions to the questionnaire format beginning in 1990 resulted in higher rates of nonresponse to the item on work activity through 1993, when the rate was 15.1 percent. The questionnaire was revised again in 1994, and nonresponse subsequently dropped to 11.9 percent in 1994 and 10.7 in 1995. A final revision in 1995 dropped the nonresponse for this item to just 3.4 percent in 1997.

The U.S. regions of employment shown in Table A-3 include the following states and territories:

<i>New England:</i>	Connecticut, Maine, Massachusetts, New Hampshire, Rhode Island, Vermont
<i>Middle Atlantic:</i>	New Jersey, New York, Pennsylvania
<i>East North Central:</i>	Illinois, Indiana, Michigan, Ohio, Wisconsin
<i>West North Central:</i>	Iowa, Kansas, Minnesota, Missouri, Nebraska, North Dakota, South Dakota
<i>South Atlantic:</i>	Delaware, District of Columbia, Florida, Georgia, Maryland, North Carolina, South Carolina, Virginia, West Virginia
<i>East South Central:</i>	Alabama, Kentucky, Mississippi, Tennessee
<i>West South Central:</i>	Arkansas, Louisiana, Oklahoma, Texas
<i>Mountain:</i>	Arizona, Colorado, Idaho, Montana, Nevada, New Mexico, Utah, Wyoming
<i>Pacific & Insular:</i>	Alaska, California, Hawaii, Oregon, Washington, American Samoa, Guam, Puerto Rico, Trust Territory, Virgin Islands

TABLE A-4: Table A-4 contains data by race/ethnicity and citizenship for selected variables included in Tables A-3 and A-5. Field groupings may differ from those in reports published by Federal sponsors of the SED.

The racial/ethnic question has undergone several revisions over the years. In 1977 it was modified to correspond to a standard question format recommended by the Federal Interagency Committee on Education and adopted by the Office of Management and Budget (OMB) for use in Federally sponsored surveys; an explanation of the effect of these changes is detailed on page 13 of *Summary Report 1977*. (Note: Changes in the OMB guidelines prompted the moving of persons having origins in the Indian subcontinent from the white category to the Asian category.) In 1980 the item was further revised in two ways: (1) the Hispanic category was subdivided into Puerto Rican, Mexican American, and other Hispanic to provide more detail for users of the racial/ethnic data, and (2) respondents were asked to check only one racial category. (Before 1980 doctorate recipients could check more than one category to indicate their race.)

The item was modified again in 1982 to separate the questions on race and ethnicity. Since then respondents have been asked to first check one of the four racial group categories (American Indian, Asian, black, or white) and then indicate whether or not they are Hispanic. In Table A-4, doctorate recipients who reported Hispanic heritage, regardless of racial designation, are included in one of three Hispanic groups: Puerto Rican, Mexican American, or other Hispanic. The remaining survey respondents are then counted in the respective racial groups. (Note: doctorate recipients who checked the category "American Indian or Alaskan Native" are identified as American Indian in this report.)

NOTE about median age and time lapse (to doctorate): The method of computing medians has been revised. Beginning with Summary Report 1994, months (of birth, baccalaureate, and doctorate) are included in the calculations; medians presented in earlier reports were based only on years. Some medians would be the same regardless of the method of computation, but the new method generally computes slightly different results. While variation is small (usually one or two decimal places), the reader should consider these differences when comparing medians presented in this report with those in earlier reports. See explanatory information on Table A-3 for further description.

In the section of "Doctoral Program Support" a recipient counts in more than one category if support was received from multiple sources. Because a student counts more than once for sources of support, the vertical percentages sum to more than 100 percent. See the explanatory note on Appendix Table A-5 for further detail. (Data on the *primary* source of support for doctorate recipients are presented in the body of the report.)

The other sections in Table A-4 correspond to many of those in Appendix Table A-3. The reader is referred to the explanatory note on Table A-3 for additional information.

TABLE A-5: Table A-5 displays data reported in item A11 on financial resources used in support of the respondent's doctoral program, by broad field and sex of recipient. Field groupings may differ from those in reports published by Federal sponsors of the SED.

A recipient counts in more than one category in Table A-5 if more than one financial resource was reported. Because a student counts once for each of his/her financial resources, the vertical percentages sum to more than 100 percent. (Data on the *primary* financial resources for doctorate recipients are presented in the body of the report.) Please consult Appendix C: Technical Notes for additional information on changes in the coding of Sources of Support/Financial Resources.

TABLE A-6: Table A-6 shows, by broad field and sex, the number of persons receiving a doctorate in the most recent year from institutions in each of the 50 states, the District of Columbia, and Puerto Rico. Field groupings may differ from those in reports published by Federal sponsors of the SED. See appendix E for a description of field groupings as reported in this table; see the questionnaire's Specialties List in appendix D for the names and codes of the subfields included.

TABLE A-7: Table A-7 displays data by doctorate-granting institution and major field. It includes all institutions in the United States (the 50 states, the District of Columbia, and Puerto Rico) that awarded doctoral degrees in the most recent year. Field groupings may differ from those in reports published by Federal sponsors of the SED and from departmental designations at institutions.

APPENDIX TABLE A-1. Number of doctorate recipients, by gender and subfield, 1998

Subfield of Doctorate	Number of Doctorates			Subfield of Doctorate	Number of Doctorates		
	Total*	Men	Women		Total*	Men	Women
TOTAL ALL FIELDS	42,683	24,653	17,856	Engineering Science	50	42	8
PHYSICAL SCIENCES	6,739	5,104	1,600	Environmental Health Engineering	63	46	17
MATHEMATICS	1,177	872	297	Industrial/Manufacturing	227	187	39
Applied Mathematics	265	203	61	Materials Science	482	404	75
Algebra	75	57	18	Mechanical	936	849	79
Analysis & Functional Analysis	130	105	25	Metalurgical	59	51	7
Geometry	54	39	15	Mining & Mineral	21	17	4
Logic	16	11	5	Nuclear	97	86	10
Number Theory	46	39	7	Ocean	29	29	0
Mathematical Statistics	204	141	62	Operations Research	62	47	15
Topology	65	52	13	Petroleum	48	42	6
Computing Theory & Practice	18	15	3	Polymer/Plastics	59	44	15
Operations Research	17	11	6	Systems	68	59	9
Mathematics, General	163	118	39	Engineering, General	30	23	3
Mathematics, Other	124	81	43	Engineering, Other	194	156	38
COMPUTER SCIENCE	923	763	157	LIFE SCIENCES	8,540	4,640	3,876
Computer Science	817	696	118	BIOLOGICAL SCIENCES	5,848	3,298	2,533
Information Sciences & Systems	106	67	39	Biochemistry	798	448	349
PHYSICS & ASTRONOMY	1,584	1,354	223	Biomedical Sciences	184	101	79
Astronomy	91	69	22	Biophysics	166	119	47
Astrophysics	117	93	24	Biotechnology Research	12	8	4
Acoustics	18	12	6	Bacteriology	13	9	4
Chemical & Atomic/Molecular	99	86	13	Plant Genetics	40	22	18
Elementary Particles	173	162	11	Plant Pathology	18	10	8
Fluids	26	26	0	Plant Physiology	61	33	28
Nuclear	92	81	11	Botany, Other	113	58	55
Optics	104	86	18	Anatomy	35	27	8
Plasma & High-Temperature	55	53	2	Biometrics and Biostatistics	75	35	39
Polymer	24	20	4	Cell Biology	299	145	154
Solid State & Low-Temperature	313	276	37	Ecology	292	177	114
Physics, General	190	158	29	Developmental Biology/Embryology	127	66	61
Physics, Other	282	232	46	Endocrinology	30	16	14
CHEMISTRY	2,217	1,510	695	Entomology	138	101	37
Analytical	384	238	146	Biological Immunology	245	130	115
Inorganic	287	203	84	Molecular Biology	741	414	324
Nuclear	5	4	1	Microbiology	384	214	169
Organic	597	437	160	Neuroscience	412	244	168
Medicinal/Pharmaceutical	115	68	46	Nutritional Sciences	137	42	95
Physical	278	201	77	Parasitology	15	9	6
Polymer	123	83	40	Toxicology	156	95	61
Theoretical	41	31	10	Human & Animal Genetics	196	105	91
Chemistry, General	286	187	88	Human & Animal Pathology	91	56	35
Chemistry, Other	101	58	43	Human & Animal Pharmacology	256	133	121
EARTH, ATMOS., & MARINE SCI.	838	605	228	Human & Animal Physiology	258	158	100
Atmospheric Physics & Chemistry	38	31	7	Zoology, Other	111	68	43
Atmospheric Dynamics	24	16	8	Biological Sciences, General	217	133	82
Meteorology	25	19	5	Biological Sciences, Other	228	122	104
Atmos. Sci./Meteorology, General	22	13	8	HEALTH SCIENCES	1,500	488	1,006
Atmos. Sci./Meteorology, Other	16	14	2	Speech-Lang. Pathology & Audiology	95	20	74
Geology	171	131	40	Environmental Health	54	37	17
Geochemistry	58	35	22	Health Systems/Services Admin.	63	27	36
Geophysics & Seismology	106	85	21	Public Health	157	49	107
Paleontology	23	16	7	Epidemiology	166	54	112
Mineralogy, Petrology	14	9	5	Exercise Physiology/Sci., Kinesiology	129	80	49
Stratigraphy, Sedimentation	24	20	4	Nursing	399	17	380
Geomorphology & Glacial Geology	20	12	8	Pharmacy	156	79	75
Geological & Related Sci., General	13	8	5	Rehabilitation/Therapeutic Services	33	11	22
Geological & Related Sci., Other	40	33	7	Veterinary Medicine	48	30	18
Environmental Science	73	43	30	Health Sciences, General	17	5	12
Hydrology & Water Resources	35	27	8	Health Sciences, Other	183	79	104
Oceanography	94	64	29	AGRICULTURAL SCIENCES	1,192	854	337
Marine Sciences	18	15	3	Agricultural Economics	155	115	40
Misc. Physical Sciences, Other	24	14	9	Agricultural Business & Management	2	2	0
ENGINEERING	5,919	5,108	769	Animal Breeding & Genetics	18	12	6
Aerospace, Aeronautic., Astronautic.	242	227	14	Animal Nutrition	45	32	13
Agricultural	73	68	5	Dairy Science	10	8	2
Bioengineering & Biomedical	207	157	50	Poultry Science	11	8	3
Ceramic Sciences	24	22	2	Fisheries Science & Management	30	22	8
Chemical	667	542	119	Animal Sciences, Other	60	44	16
Civil	587	498	83	Agronomy & Crop Science	96	77	18
Communications	40	34	6	Plant Breeding & Genetics	69	55	14
Computer	210	187	22	Plant Pathology	66	42	24
Electrical, Electronics	1,343	1,206	127	Plant Sciences, Other	37	23	14
Engineering Mechanics	86	73	13	Food Engineering	13	10	3
Engineering Physics	15	12	3	Food Sciences, Other	153	87	66
				Soil Chemistry/Microbiology	27	20	7
				Soil Sciences, Other	74	53	21
				Horticulture Science	60	47	13
				Forest Biology	20	14	6
				Forest Engineering	2	2	0
				Forest Management	27	18	9

SOURCE: NSF/NIH/NEH/USED/USDA, Survey of Earned Doctorates

APPENDIX TABLE A-1. Number of doctorate recipients, by gender and subfield, 1998

Subfield of Doctorate	Number of Doctorates			Subfield of Doctorate	Number of Doctorates		
	Total*	Men	Women		Total*	Men	Women
Wood Sci. & Pulp/Paper Tech.	25	21	4	Humanities, General	23	11	12
Conservation/Renewable Nat. Res.	25	14	11	Humanities, Other	159	65	94
Forestry & Related Sci., Other	69	53	16	EDUCATION	6,559	2,422	4,120
Wildlife/Range Management	55	41	14	Curriculum & Instruction	885	256	627
Agricultural Sciences, General	8	7	1	Educational Admin. & Supervision	949	402	545
Agricultural Sciences, Other	35	27	8	Educational Leadership	1,114	436	678
SOCIAL SCIENCES (INCL. PSYCH.)	7,075	3,206	3,838	Educ. /Instruct. Media Design	91	45	46
Anthropology	425	183	239	Educ. Stat./Research Methods	56	29	27
Area Studies	14	3	11	Educ. Assess., Test., & Meas.	35	17	18
Criminology	55	33	22	Educational Psychology	325	112	213
Demography/Population Studies	31	18	13	School Psychology	112	31	81
Economics	973	703	267	Social/Phil. Found. Of Educ.	129	47	82
Econometrics	25	21	4	Special Education	248	44	204
Geography	154	105	49	Counseling Educ./Couns. & Guidance	269	89	180
International Relations/Affairs	97	64	33	Higher Educ./Evaluation & Research	430	184	246
Political Science and Government	662	418	243	Pre-elementary/Early Childhood	54	3	51
Public Policy Analysis	97	56	41	Elementary Education	62	15	46
Sociology	549	243	304	Secondary Education	55	22	32
Statistics	60	35	21	Adult & Continuing Education	168	59	109
Urban Affairs/Studies	75	49	26	TEACHING FIELDS	951	391	558
Social Sciences, General	30	12	17	Agricultural Education	25	15	10
Social Sciences, Other	147	58	88	Art Education	46	15	31
PSYCHOLOGY	3,681	1,205	2,460	Business Education	30	19	11
Clinical	1,350	376	969	English Education	53	12	41
Cognitive & Psycholinguistics	113	62	50	Foreign Languages Education	73	32	41
Comparative	6	2	4	Health Education	70	13	57
Counseling	448	153	295	Home Economics Education	8	3	5
Developmental and Child	267	57	207	Technical/Industrial Arts Education	30	20	10
Human/Indv. & Family Development	118	28	90	Mathematics Education	115	37	78
Experimental	149	84	65	Music Education	94	54	40
Educational	61	22	39	Nursing Education	14	0	13
Family & Marriage Counseling	51	22	28	Physical Education and Coaching	108	66	42
Industrial & Organizational	189	78	110	Reading Education	77	8	69
Personality	24	9	15	Science Education	109	51	57
Physiological/Psychobiology	92	43	49	Social Science Education	15	8	7
Psychometrics	8	4	4	Technical Education	18	9	9
Quantitative	15	7	8	Trade & Industrial Education	14	11	3
School	106	25	81	Teacher Ed./Spec. Acad. & Voc., Other	52	18	34
Social	186	69	117	Education, General	235	82	145
Psychology, General	302	96	205	Education, Other	391	158	232
Psychology, Other	196	68	124	PROFESSIONAL/OTHER FIELDS	2,352	1,359	978
HUMANITIES	5,499	2,814	2,675	BUSINESS AND MANAGEMENT	1,165	783	374
History, American	407	257	150	Accounting	154	92	62
History, Asian	70	48	22	Banking/Financial Support Services	83	65	16
History, European	230	133	97	Business Admin. & Management	342	240	98
History/Philosophy of Sci. & Tech.	43	24	19	Business/Managerial Economics	56	43	13
History, General	86	56	30	International Business	33	22	11
History, Other	152	85	67	Mgmt. Info. Sys./Bus. Data Proc.	86	63	21
Classics	84	48	36	Marketing Management & Research	143	90	53
Comparative Literature	162	64	98	Operations Research	57	47	10
Linguistics	219	95	123	Organizational Behavior	103	51	52
Speech & Rhetorical Studies	168	85	83	Bus. Mgmt./Admin. Serv., General	36	23	13
Letters, General	22	11	11	Bus. Mgmt./Admin. Serv., Other	72	47	25
Letters, Other	82	31	51	COMMUNICATIONS	372	161	211
American Studies	100	48	52	Communications Research	52	17	35
Archeology	34	11	23	Mass Communications	141	71	70
Art History/Criticism/Conservation	220	55	165	Communications Theory	48	21	27
Music	694	396	294	Communications, General	62	25	37
Philosophy	408	285	120	Communications, Other	69	27	42
Religion	327	238	89	OTHER PROFESSIONAL FIELDS	721	363	356
Drama/Theater Arts	91	46	45	Architectural Environmental Design	51	30	19
LANGUAGE & LITERATURE	1,718	722	994	Home Economics	17	4	13
American	388	159	229	Law	31	18	13
English	688	296	392	Library Science	34	9	25
French	137	50	86	Parks/Recreation/Leisure/Fitness	36	28	8
German	106	41	64	Public Administration	105	57	48
Italian	33	14	19	Social Work	236	74	162
Spanish	207	93	114	Theology/Religious Education	160	123	37
Russian	43	15	28	Professional Fields, General	0	0	0
Slavic	15	8	7	Professional Fields, Other	51	20	31
Chinese	18	12	6	OTHER/UNKNOWN FIELDS**	94	52	37
Japanese	11	6	5				
Hebrew	8	4	4				
Arabic	9	5	4				
Other Language & Literature	55	19	36				

*Includes a total of 174 doctorate recipients whose gender was unknown.

**Includes 20 doctorate recipients whose doctoral field was unknown.

NOTE: Field groupings may differ from those in reports published by federal sponsors of the Survey of Earned Doctorates.

APPENDIX TABLE A-2. Number of doctorate recipients by citizenship, race/ethnicity, and subfield, 1998

Subfield of Doctorate	Total Doctorates*	Non-U.S. Citizens Temp. Visas	Total	U.S. Citizens and Non-U.S. with Permanent Visas							
				American Indian†	Asian‡	Black	White	Puerto Rican	Mexican Amer.	Other Hispanic	Unkn. Race
TOTAL ALL FIELDS	42,683	8,642	30,914	189	2,720	1,586	24,153	299	421	591	955
PHYSICAL SCIENCES	6,739	2,041	4,211	19	544	93	3,297	25	35	51	147
MATHEMATICS	1,177	419	666	3	71	16	522	7	6	14	27
Applied Mathematics	265	110	145	0	17	5	107	3	3	2	8
Algebra	75	23	51	0	3	1	45	0	1	0	1
Analysis & Functional Analysis	130	51	76	0	10	1	61	0	0	1	3
Geometry	54	19	31	1	2	1	26	0	1	0	0
Logic	16	7	8	0	0	0	8	0	0	0	0
Number Theory	46	10	35	0	0	0	32	1	0	0	2
Mathematical Statistics	204	76	121	1	19	2	95	1	0	1	2
Topology	65	21	44	0	5	1	31	0	0	4	3
Computing Theory & Practice	18	11	6	0	0	0	5	1	0	0	0
Operations Research	17	5	11	0	1	0	9	0	0	1	0
Mathematics, General	163	44	64	1	10	1	42	0	1	2	7
Mathematics, Other	124	42	74	0	4	4	61	1	0	3	1
COMPUTER SCIENCE	923	309	551	3	91	14	406	2	3	9	23
Computer Science	817	290	468	3	82	8	345	1	3	6	20
Information Sciences & Systems	106	19	83	0	9	6	61	1	0	3	3
PHYSICS & ASTRONOMY	1,584	499	962	3	124	11	768	2	6	12	36
Astronomy	91	17	65	1	5	0	52	0	0	0	7
Astrophysics	117	28	83	0	8	1	69	1	1	0	3
Acoustics	18	7	9	0	0	0	9	0	0	0	0
Chemical & Atomic/Molecular	99	32	65	0	12	0	47	0	0	1	5
Elementary Particle	173	65	105	0	12	1	89	0	1	2	0
Fluids	26	12	14	0	0	0	13	0	0	1	0
Nuclear	92	21	64	0	3	1	56	1	0	1	2
Optics	104	35	68	0	11	1	53	0	0	2	1
Plasma & High-Temperature	55	13	41	0	7	0	30	0	0	2	2
Polymer	24	10	14	1	3	0	10	0	0	0	0
Solid State & Low-Temperature	313	132	176	0	25	2	143	0	1	1	4
Physics, General	190	56	109	1	19	2	79	0	1	1	6
Physics, Other	282	71	149	0	19	3	118	0	2	1	6
CHEMISTRY	2,217	610	1,455	7	207	43	1,123	9	15	10	41
Analytical	384	105	264	0	35	14	201	4	2	2	6
Inorganic	287	63	213	1	23	2	178	1	4	2	2
Nuclear	5	1	4	0	0	0	4	0	0	0	0
Organic	597	175	407	1	59	10	325	1	4	2	5
Medicinal/Pharmaceutical	115	33	69	0	13	5	46	0	0	0	5
Physical	278	73	200	2	26	6	157	2	3	2	2
Polymer	123	47	72	0	22	3	47	0	0	0	0
Theoretical	41	17	23	1	1	0	20	0	0	0	1
Chemistry, General	286	66	135	2	17	0	100	1	1	1	13
Chemistry, Other	101	30	68	0	11	3	45	0	1	1	7
EARTH, ATMOS., & MARINE SCIENCE	838	204	577	3	51	9	478	5	5	6	20
Atmospheric Physics & Chem.	38	7	29	0	2	0	25	1	0	0	1
Atmospheric Dynamics	24	7	17	0	4	1	11	0	0	0	1
Meteorology	25	6	17	0	2	0	15	0	0	0	0
Atmos.Sci./Meteorology, General	22	7	10	0	1	1	8	0	0	0	0
Atmos.Sci./Meteorology, Other	16	3	12	0	0	0	10	0	0	0	2
Geology	171	39	119	1	3	1	107	0	2	0	5
Geochemistry	58	11	45	2	6	1	34	0	0	2	0
Geophysics & Seismology	106	42	59	0	9	1	44	0	1	0	4
Paleontology	23	7	16	0	0	0	15	1	0	0	0
Mineralogy, Petrology	14	2	11	0	1	0	9	0	0	1	0
Stratigraphy, Sedimentation	24	8	15	0	1	0	14	0	0	0	0
Geomorphology & Glacial Geol.	20	1	19	0	0	0	18	0	0	1	0
Geological & Related Sci., General	13	4	8	0	1	0	6	0	1	0	0
Geological & Related Sci., Other	40	7	29	0	5	1	21	0	0	0	2
Environmental Science	73	17	48	0	7	3	37	0	0	0	1
Hydrology & Water Resources	35	10	25	0	3	0	21	0	0	0	1
Oceanography	94	21	64	0	4	0	54	2	1	2	1
Marine Sciences	18	1	16	0	1	0	13	1	0	0	1
Misc. Physical Sciences, Other	24	4	18	0	1	0	16	0	0	0	1
ENGINEERING	5,919	2,392	3,021	13	555	84	2,160	17	30	63	99
Aerospace, Aeronautic., Astronautic.	242	66	151	0	12	2	125	1	3	1	7
Agricultural	73	37	29	1	3	1	23	0	0	0	1
Bioengineering & Biomedical	207	50	147	1	32	0	110	0	0	1	3
Ceramic Science	24	8	15	1	2	0	12	0	0	0	0
Chemical	667	282	340	3	55	3	258	3	1	6	11
Civil	587	262	258	0	33	8	191	1	5	9	11
Communications	40	20	19	0	11	0	8	0	0	0	0
Computer	210	94	105	1	31	2	64	0	1	4	2

NOTE: Field groupings may differ from those in reports published by federal sponsors of the Survey of Earned Doctorates. See inside the back cover for a description of fields as reported in this table.

Refer also to the explanatory note about this table in front of Appendix A.

*Includes 3,127 individuals who did not report their citizenship at time of doctorate. See the "Important Notice" at the front of this packet for discussion of item response rate issues.

†Includes Alaskan Native. ‡Includes Pacific Islander.

SOURCE: NSF/NIH/NEH/USED/USDA, Survey of Earned Doctorates

APPENDIX TABLE A-2. Number of doctorate recipients by citizenship, race/ethnicity, and subfield, 1998

Subfield of Doctorate	Total Doctorates*	Non-U.S. Citizens Temp. Visas	U.S. Citizens and Non-U.S. with Permanent Visas								
			Total	American Indian	Asian†	Black	White	Puerto Rican	Mexican Amer.	Other Hispanic	Unkn. Race
Electrical, Electronics	1,343	546	673	2	164	21	447	3	6	17	13
Engineering Mechanics	86	36	46	0	7	1	33	1	1	1	2
Engineering Physics	15	4	11	0	1	0	9	0	0	1	0
Engineering Science	50	13	31	0	3	3	21	0	0	1	3
Environmental Health Engineering	63	22	35	0	5	2	25	0	0	1	2
Industrial/Manufacturing	227	113	99	0	11	8	70	3	3	1	3
Materials Science	482	185	266	0	46	10	192	1	4	3	10
Mechanical	936	391	466	2	83	13	335	4	2	10	17
Metallurgical	59	21	32	1	7	0	21	0	0	0	3
Mining & Mineral	21	10	8	0	2	1	5	0	0	0	0
Nuclear	97	30	55	0	5	1	44	0	1	2	2
Ocean	29	9	14	1	3	0	9	0	0	0	1
Operations Research	62	27	32	0	5	2	22	0	1	1	1
Petroleum	48	38	8	0	0	0	6	0	0	1	1
Polymer/Plastics	59	33	24	0	10	0	12	0	0	2	0
Systems	68	21	41	0	6	1	33	0	0	0	1
Engineering, General	30	4	7	0	3	0	4	0	0	0	0
Engineering, Other	194	70	109	0	15	5	81	0	2	1	5
LIFE SCIENCES	8,540	1,946	6,020	25	800	193	4,609	53	79	111	150
BIOLOGICAL SCIENCES	5,848	1,230	4,279	12	658	108	3,226	43	54	72	106
Biochemistry	798	195	554	4	114	13	394	5	8	7	9
Biomedical Sciences	184	35	116	0	32	2	71	2	2	1	6
Biophysics	166	43	117	0	31	1	78	0	1	1	5
Biotechnology Research	12	8	4	0	0	0	4	0	0	0	0
Bacteriology	13	4	9	0	0	1	8	0	0	0	0
Plant Genetics	40	10	29	0	5	0	22	2	0	0	0
Plant Pathology	18	9	8	0	0	0	7	0	0	0	1
Plant Physiology	61	25	33	0	3	1	29	0	0	0	0
Botany, Other	113	26	81	1	8	0	66	2	2	0	2
Anatomy	35	6	27	0	5	0	19	0	0	1	2
Biometrics and Biostatistics	75	31	44	0	15	2	25	0	0	1	1
Cell Biology	299	45	241	1	48	3	165	1	8	10	5
Ecology	292	31	246	1	2	5	231	1	0	2	4
Developmental Biology/Embryology	127	28	98	0	21	2	73	1	0	1	0
Endocrinology	30	8	22	0	1	1	18	0	0	2	0
Entomology	138	39	85	0	7	2	70	1	2	3	0
Biological Immunology	245	37	200	0	26	6	156	2	1	2	7
Molecular Biology	741	194	506	2	103	8	360	5	5	11	12
Microbiology	384	95	276	1	40	6	209	2	3	6	9
Neuroscience	412	70	332	2	58	13	235	3	2	6	13
Nutritional Sciences	137	29	92	0	8	5	75	1	3	0	0
Parasitology	15	4	11	0	1	1	8	1	0	0	0
Toxicology	156	17	134	0	13	4	110	0	4	1	2
Human & Animal Genetics	196	32	153	0	16	3	122	2	2	4	4
Human & Animal Pathology	91	16	69	0	12	1	51	1	1	0	3
Human & Animal Pharmacology	256	63	181	0	36	9	125	3	1	3	4
Human & Animal Physiology	258	48	201	0	26	12	153	2	1	4	3
Zoology, Other	111	8	101	0	3	0	93	1	2	1	1
Biological Sciences, General	217	27	149	0	10	4	119	4	3	2	7
Biological Sciences, Other	228	47	160	0	14	3	130	1	3	3	6
HEALTH SCIENCES	1,500	239	1,116	4	84	62	903	7	15	14	27
Speech-Lang. Pathology & Audiology	95	11	78	1	4	11	62	0	0	0	0
Environmental Health	54	17	30	0	5	0	24	0	0	1	0
Health Systems/Services Admin.	63	8	52	0	5	2	44	0	0	1	0
Public Health	157	19	132	2	13	9	101	1	2	3	1
Epidemiology	166	21	133	0	9	5	110	0	2	3	4
Exercise Physiology/Sci., Kinesiology	129	20	103	0	2	1	95	3	0	1	1
Nursing	399	27	345	1	12	21	295	0	7	2	7
Pharmacy	156	68	77	0	17	4	48	2	1	2	3
Rehabilitation/Therapeutic Services	33	1	31	0	3	2	26	0	0	0	0
Veterinary Medicine	48	13	31	0	2	2	23	0	1	0	3
Health Sciences, General	17	2	14	0	0	2	12	0	0	0	0
Health Sciences, Other	183	32	90	0	12	3	63	1	2	1	8
AGRICULTURAL SCIENCES	1,192	477	625	9	58	23	480	3	10	25	17
Agricultural Economics	155	58	84	0	11	4	63	0	0	2	4
Agricultural Business & Management	2	1	1	0	0	0	0	0	0	1	0
Animal Breeding & Genetics	18	6	9	0	0	0	9	0	0	0	0
Animal Nutrition	45	14	28	1	0	0	25	0	1	0	1
Dairy Science	10	5	3	0	0	0	3	0	0	0	0
Poultry Science	11	7	2	0	1	0	1	0	0	0	0
Fisheries Science & Management	30	7	21	1	2	0	17	0	0	1	0
Animal Sciences, Other	60	18	40	0	3	0	32	0	3	2	0
Agronomy & Crop Science	96	37	42	1	7	2	29	1	0	2	0
Plant Breeding & Genetics	69	29	34	2	3	2	23	0	1	1	2
Plant Pathology	66	35	28	0	3	2	16	2	0	4	1
Plant Sciences, Other	37	21	14	0	0	1	11	0	2	0	0
Food Engineering	13	6	7	0	1	1	5	0	0	0	0
Food Sciences, Other	153	84	61	0	14	3	40	0	1	3	0
Soil Chemistry/Microbiology	27	14	12	0	0	0	12	0	0	0	0
Soil Sciences, Other	74	25	43	0	5	1	33	0	0	3	1
Horticulture Science	60	25	29	0	1	1	25	0	0	1	1
Forest Biology	20	7	13	0	0	1	12	0	0	0	0
Forest Engineering	2	1	1	0	1	0	0	0	0	0	0
Forest Management	27	9	18	0	2	1	14	0	1	0	0

SOURCE: NSF/NIH/NEH/USED/USDA, Survey of Earned Doctorates

APPENDIX TABLE A-2. Number of doctorate recipients by citizenship, race/ethnicity, and subfield, 1998

Subfield of Doctorate	Total Doctorates*	Non-U.S. Citizens		U.S. Citizens and Non-U.S. with Permanent Visas								
		Total	Temp. Visas	American Indian†	Asian‡	Black	White	Puerto Rican	Mexican Amer.	Other Hispanic	Unkn. Race	
Wood Sci. & Pulp/Paper Tech.	25	13	10	0	1	0	8	0	0	1	0	
Conservation/Renewable Nat. Res.	25	9	16	0	0	1	12	0	0	2	1	
Forestry & Related Sci., Other	69	21	41	2	3	0	33	0	0	0	3	
Wildlife/Range Management	55	10	45	2	0	0	41	0	0	1	1	
Agricultural Sciences, General	8	3	4	0	0	1	2	0	0	0	1	
Agricultural Sciences, Other	35	12	19	0	0	2	14	0	1	1	1	
SOCIAL SCIENCES (INCL. PSYCH.)		7,075	912	5,611	42	299	301	4,467	81	89	142	190
Anthropology	425	46	351	5	18	11	272	1	10	10	24	
Area Studies	14	4	10	0	1	1	6	0	2	0	0	
Criminology	55	7	48	0	1	7	34	1	1	3	1	
Demography/Population Studies	31	10	13	0	0	1	11	0	1	0	0	
Economics	973	396	480	0	71	18	359	3	4	15	10	
Econometrics	25	16	9	0	3	1	4	0	0	1	0	
Geography	154	22	114	0	5	3	103	1	0	2	0	
International Relations/Affairs	97	16	73	0	8	7	53	1	1	3	0	
Political Science and Government	662	71	542	3	26	32	446	2	12	9	12	
Public Policy Analysis	97	15	79	0	5	5	63	0	0	3	3	
Sociology	549	81	427	3	23	38	337	2	5	7	12	
Statistics	60	29	23	0	7	1	14	0	0	1	0	
Urban Affairs/Studies	75	17	52	0	7	6	39	0	0	0	0	
Social Sciences, General	30	4	24	0	3	1	19	0	0	0	1	
Social Sciences, Other	147	27	107	0	7	14	77	1	0	3	5	
PSYCHOLOGY		3,681	151	3,259	31	114	155	2,630	69	53	85	122
Clinical	1,350	19	1,251	15	45	56	1,006	28	25	38	38	
Cognitive & Psycholinguistics	113	21	88	0	3	0	79	0	1	3	2	
Comparative	6	0	6	1	0	0	5	0	0	0	0	
Counseling	448	10	423	4	15	30	348	5	7	9	5	
Developmental and Child	267	13	249	1	10	11	174	1	2	6	44	
Human/Indv. & Family Development	118	13	99	0	5	7	83	1	0	1	2	
Experimental	149	8	140	1	6	2	126	0	4	0	1	
Educational	61	6	53	0	0	5	43	0	2	1	2	
Family & Marriage Counseling	51	2	48	0	0	0	45	0	1	0	2	
Industrial & Organizational	189	5	172	2	6	10	137	14	1	1	1	
Personality	24	1	23	0	0	5	18	0	0	0	0	
Physiological/Psychobiology	92	13	77	1	3	1	67	0	0	3	2	
Psychometrics	8	2	6	0	0	0	6	0	0	0	0	
Quantitative	15	5	10	0	1	0	7	1	0	1	0	
School	106	0	101	0	3	5	90	0	1	1	1	
Social	186	17	165	2	7	7	137	1	4	2	5	
Psychology, General	302	6	202	4	9	7	143	16	3	7	13	
Psychology, Other	196	10	146	0	1	9	116	2	2	12	4	
HUMANITIES		5,499	537	4,579	22	218	159	3,820	38	60	103	159
History, American	407	12	387	3	15	22	328	0	6	4	9	
History, Asian	70	10	54	0	14	0	37	0	0	0	3	
History, European	230	14	215	1	3	1	198	0	0	3	9	
History/Philosophy of Sci. & Tech.	43	5	34	0	0	0	31	0	1	0	2	
History, General	86	4	51	0	0	2	35	2	1	2	9	
History, Other	152	15	130	1	4	10	103	3	4	1	4	
Classics	84	12	70	0	2	2	61	0	1	1	3	
Comparative Literature	162	29	124	1	11	6	92	2	1	3	8	
Linguistics	219	66	136	0	22	4	103	1	1	4	1	
Speech & Rhetorical Studies	168	7	153	1	2	2	143	0	3	2	0	
Letters, General	22	2	20	0	0	0	19	0	1	0	0	
Letters, Other	82	4	76	0	3	3	63	2	1	2	2	
American Studies	100	4	94	1	1	16	73	1	1	0	1	
Archaeology	34	6	27	0	0	0	25	0	0	0	2	
Art History/Criticism/Conservation	220	21	189	0	2	3	169	1	3	1	10	
Music	694	95	522	2	53	20	412	3	1	14	17	
Philosophy	408	35	323	2	11	7	282	3	1	5	12	
Religion	327	27	284	3	18	9	245	2	2	2	3	
Drama/Theater Arts	91	7	79	0	0	4	72	0	0	0	3	
LANGUAGE & LITERATURE		1,718	148	1,466	7	49	37	1,218	18	32	58	47
American	388	12	374	1	12	21	318	3	10	3	6	
English	688	44	597	3	20	11	531	1	8	3	20	
French	137	12	119	1	2	2	100	1	1	3	9	
German	106	19	84	0	2	0	79	0	0	1	2	
Italian	33	7	20	0	0	0	16	0	1	1	2	
Spanish	207	40	152	1	4	2	77	13	10	44	1	
Russian	43	4	38	0	0	0	36	0	0	0	2	
Slavic	15	0	11	1	0	0	9	0	0	0	1	
Chinese	18	3	13	0	4	1	8	0	0	0	0	
Japanese	11	0	11	0	3	0	8	0	0	0	0	
Hebrew	8	1	7	0	0	0	6	0	0	0	1	
Arabic	9	0	8	0	1	0	5	0	0	1	1	
Other Language & Literature	55	6	32	0	1	0	25	0	2	2	2	
Humanities, General	23	0	23	0	0	3	19	0	0	0	1	
Humanities, Other	159	14	122	0	8	8	92	0	0	1	13	
EDUCATION		6,559	424	5,700	50	180	646	4,390	71	114	97	152
Curriculum & Instruction	885	71	766	7	23	57	613	18	21	15	12	
Educational Admin. & Supervision	949	37	867	9	9	129	670	10	14	14	12	
Educational Leadership	1,114	23	1,043	8	23	166	755	5	28	15	43	

SOURCE: NSF/NIH/NEH/USED/USDA, Survey of Earned Doctorates

APPENDIX TABLE A-2. Number of doctorate recipients by citizenship, race/ethnicity, and subfield, 1998

Subfield of Doctorate	Total Doctorates*	Non-U.S.		U.S. Citizens and Non-U.S. with Permanent Visas							
		Citizens	Temp. Visas	Total	American Indian†	Asian‡	Black	White	Puerto Rican	Mexican Amer.	Other Hispanic
Educ./Instruct. Media Design	91	7	80	0	5	6	67	0	1	0	1
Educ. Stat./Research Methods	56	8	48	0	5	5	36	1	0	1	0
Educ. Assess., Test., & Meas.	35	5	30	0	5	1	23	0	0	0	1
Educational Psychology	325	26	275	1	12	14	227	2	6	5	8
School Psychology	112	5	107	1	0	8	90	3	3	1	1
Social/Phil. Found. Of Educ.	129	13	110	1	6	20	73	0	5	4	1
Special Education	248	18	224	3	9	24	175	2	4	4	3
Counseling Educ./Couns. & Guidance	269	12	246	3	3	25	201	8	3	0	3
Higher Educ./Evaluation & Research	430	22	402	3	15	65	302	4	4	5	4
Pre-elementary/Early Childhood	54	7	47	0	1	6	39	0	0	0	1
Elementary Education	62	5	52	2	2	6	39	0	1	1	1
Secondary Education	55	2	52	0	0	4	27	0	1	1	19
Adult & Continuing Education	168	11	147	2	6	7	124	1	0	5	2
TEACHING FIELDS	951	122	789	7	32	63	636	13	11	14	13
Agricultural Education	25	8	15	2	0	2	11	0	0	0	0
Art Education	46	9	32	1	0	2	26	1	0	1	1
Business Education	30	2	26	1	0	1	23	0	0	1	0
English Education	53	5	48	0	4	8	33	3	0	0	0
Foreign Languages Education	73	19	50	0	8	3	30	3	1	3	2
Health Education	70	2	67	0	3	7	53	0	3	0	1
Home Economics Education	8	0	8	0	0	1	7	0	0	0	0
Technical/Industrial Arts Education	30	1	29	0	1	3	22	0	0	1	2
Mathematics Education	115	12	98	0	3	10	80	0	3	2	0
Music Education	94	7	85	0	2	5	70	0	2	3	3
Nursing Education	14	0	14	0	0	2	11	0	1	0	0
Physical Education and Coaching	108	21	81	1	3	3	71	2	0	0	1
Reading Education	77	6	70	0	1	6	58	2	1	2	0
Science Education	109	18	88	1	5	1	76	2	0	1	2
Social Science Education	15	3	9	0	0	0	9	0	0	0	0
Technical Education	18	3	14	1	0	1	12	0	0	0	0
Trade & Industrial Education	14	2	11	0	1	0	10	0	0	0	0
Teacher Ed./Spec. Acad. & Voc. Other	52	4	44	0	1	8	34	0	0	0	1
Education, General	235	5	121	1	10	15	69	1	4	2	19
Education, Other	391	25	294	2	14	25	224	3	8	10	8
PROFESSIONAL/OTHER FIELDS	2,352	390	1,772	18	124	110	1,410	14	14	24	58
BUSINESS AND MANAGEMENT	1,165	248	841	9	68	44	665	5	3	14	33
Accounting	154	26	124	3	4	6	107	0	0	2	2
Banking/Financial Support Services	83	30	46	0	7	2	36	0	0	0	1
Business Admin. & Management	342	58	247	3	17	14	194	1	1	1	16
Business/Managerial Economics	56	12	41	0	7	1	28	0	1	2	2
International Business	33	9	24	0	2	1	20	0	0	1	0
Mgmt. Info. Sys./Bus. Data Proc.	86	26	52	0	8	2	39	1	0	2	0
Marketing Management & Research	143	33	106	1	11	4	84	2	1	1	2
Operations Research	57	29	26	1	4	0	18	0	0	2	1
Organizational Behavior	103	9	92	0	6	5	77	0	0	1	3
Bus. Mgmt./Admin. Serv., General	36	4	28	0	0	4	21	0	0	0	3
Bus. Mgmt./Admin. Serv., Other	72	12	55	1	2	5	41	1	0	2	3
COMMUNICATIONS	372	43	307	2	14	23	253	2	4	2	7
Communications Research	52	5	47	0	3	2	38	1	2	1	0
Mass Communications	141	28	109	2	6	9	88	0	1	1	2
Communications Theory	48	1	46	0	3	1	40	1	0	0	1
Communications, General	62	6	46	0	1	3	41	0	0	0	1
Communications, Other	69	3	59	0	1	8	46	0	1	0	3
OTHER PROFESSIONAL FIELDS	721	89	596	7	41	42	471	7	6	8	14
Architectural Environmental Design	51	19	24	1	3	1	16	0	1	1	1
Home Economics	17	1	15	0	0	2	11	1	0	0	1
Law	31	13	14	1	1	0	11	0	0	1	0
Library Science	34	2	31	0	3	3	25	0	0	0	0
Parks/Recreation/Leisure/Fitness	36	7	25	0	2	0	18	2	0	1	2
Public Administration	105	11	88	0	3	10	67	0	2	2	4
Social Work	236	17	210	3	12	18	168	3	3	2	1
Theology/Religious Education	160	14	143	1	13	4	121	1	0	1	2
Professional Fields, General	0	0	0	0	0	0	0	0	0	0	0
Professional Fields, Other	51	5	46	1	4	4	34	0	0	0	3
OTHER/UNKNOWN FIELDS	94	10	28	0	1	1	21	0	1	0	4

NOTE: Field groupings may differ from those in reports published by federal sponsors of the Survey of Earned Doctorates.

*Includes 3,127 individuals who did not report their citizenship at time of doctorate. See the "Important Notice" for discussion of item response rate issues.

†Includes Pacific Islander.

‡Includes Alaskan Native.

SOURCE: NSF/NIH/NEH/USED/USDA, Survey of Earned Doctorates

APPENDIX TABLE A-3a. Statistical profile of doctorate recipients by major field, 1998

Total all doctorates

	1998 Total	Physics and Astronomy	Chemistry	Earth, Atmos., and Marine Sci.	Mathematics	Computer Sciences	PHYSICAL SCIENCES#	ENGINEERING	Biochemistry	Other Biosciences	Health Sciences	Agricultural Sciences	LIFE SCIENCES	
Number in Field	42,683	1,584	2,217	838	1,177	923	6,739	5,919	798	5,050	1,500	1,192	8,540	
Men	%	57.8	85.5	68.1	72.2	74.1	82.7	75.7	86.3	56.1	56.4	32.5	71.6	54.3
Women		41.8	14.1	31.3	27.2	25.2	17.0	23.7	13.0	43.7	43.2	67.1	28.3	45.4
Unknown*		0.4	0.4	0.5	0.6	0.7	0.3	0.5	0.7	0.1	0.3	0.4	0.1	0.3
U.S. Citizenship	%	66.1	52.5	57.5	61.2	48.7	50.6	54.3	43.0	57.8	64.7	69.0	44.2	61.9
Non-U.S., Permanent Visa		6.3	8.2	8.1	7.6	7.9	9.1	8.2	8.1	11.7	9.1	5.4	8.2	8.6
Non-U.S., Temporary Visa		20.2	31.5	27.5	24.3	35.6	33.5	30.3	40.4	24.4	20.5	15.9	40.0	22.8
Unknown		7.3	7.8	6.9	6.8	7.8	6.8	7.2	8.5	6.1	5.7	9.7	7.6	6.7
Never Married	%	26.3	38.9	33.4	27.3	36.4	27.2	33.6	31.3	28.9	30.3	19.8	19.3	26.8
Married		53.6	44.8	51.7	56.4	48.1	55.9	50.6	55.0	56.6	53.5	56.5	66.9	56.2
Separated, Divorced		5.9	2.8	2.5	4.4	2.8	4.3	3.1	2.3	2.6	4.0	7.7	4.2	4.6
Marriage-like Relationship		3.8	4.0	3.9	4.1	3.7	2.7	3.7	2.7	4.1	4.4	2.7	1.8	3.7
Widowed		0.3	0.0	0.0	0.1	0.2	0.0	0.0	0.1	0.0	0.1	0.4	0.1	0.1
Unknown		10.1	9.5	8.5	7.6	8.9	9.9	8.9	8.7	7.6	7.7	12.9	7.8	8.6
Median Age at Doct.	Yrs	33.7	30.1	29.6	33.7	30.7	33.2	30.7	31.6	30.4	31.3	38.5	34.6	32.3
Percent with Bacc. In Same Field as Doctorate	%	51.8	69.8	71.3	48.6	65.7	36.3	62.4	71.0	28.3	53.9	43.7	47.6	48.9
Percent with Masters	%	73.5	65.5	38.9	74.3	71.9	81.4	61.1	82.3	33.3	42.9	78.8	85.8	54.3
Median Time Lapse from Bacc. To Doct.														
Total Time Registered Time	Yrs	10.4	7.6	6.8	10.5	8.0	10.4	8.0	8.9	8.0	8.3	14.8	11.0	9.1
Postdoctoral Study Plans	%	24.4	47.3	47.5	40.7	24.8	12.6	37.9	18.8	70.6	65.4	16.4	31.7	52.6
Fellowship		12.9	17.0	21.0	17.8	13.3	3.7	16.0	6.0	43.9	40.5	9.9	10.2	31.2
Research Assoc.		9.5	29.3	25.2	22.1	10.0	7.8	20.7	11.5	20.8	19.7	5.1	19.8	17.2
Traineeship		0.8	0.5	0.5	0.7	0.8	0.8	0.6	0.8	1.0	1.2	0.7	1.0	1.1
Other Study		1.1	0.5	0.7	0.1	0.7	0.3	0.5	0.6	4.9	4.0	0.7	0.7	3.0
Planned Employment After Doctorate	%	63.3	41.9	42.2	49.4	63.6	77.2	51.6	70.1	20.4	25.9	68.7	57.1	37.3
Educ. Institution**		32.3	7.1	7.4	15.8	32.6	25.1	15.2	10.7	4.8	9.0	35.9	20.3	14.9
Industry/Business		17.7	26.6	30.2	20.9	22.6	43.6	28.7	48.0	9.4	7.8	11.8	18.0	10.1
Government		4.5	3.4	1.8	5.8	2.9	4.3	3.2	7.0	0.9	2.6	7.9	10.7	4.5
Nonprofit		3.0	0.5	0.3	1.3	1.0	1.2	0.7	1.3	0.5	1.0	6.5	2.7	2.1
Other & Unknown		5.7	4.4	2.5	5.6	4.5	3.0	3.8	3.2	4.9	5.6	6.7	5.4	5.7
Postdoc. Plans Unknown	%	12.4	10.7	10.3	9.9	11.6	10.2	10.6	11.0	9.0	8.7	14.9	11.2	10.2
Definite Postdoc. Study	%	17.7	38.1	38.0	29.5	17.5	9.1	29.4	12.2	55.0	49.7	11.7	19.2	39.3
Seeking Postdoc. Study		6.6	9.3	9.5	11.2	7.3	3.5	8.4	6.6	15.5	15.6	4.7	12.5	13.3
Definite Employment		43.1	26.4	28.6	32.1	42.0	55.7	34.6	49.5	12.0	16.6	50.6	36.6	24.9
Seeking Employment		20.1	15.5	13.6	17.3	21.7	21.6	17.0	20.6	8.4	9.3	18.1	20.6	12.3
Employment Commitments After Doctorate	18,409	418	635	269	494	514	2,330	2,930	96	837	759	436	2,128	
Primary Activity+														
R & D	%	31.8	61.5	70.1	47.6	37.9	62.1	57.3	72.0	42.7	36.8	31.1	50.2	37.8
Teaching		36.6	13.9	17.2	24.2	43.9	24.3	24.6	9.7	15.6	23.8	40.7	22.2	29.1
Administration		12.0	1.7	1.3	1.9	0.8	3.1	1.7	2.2	3.1	4.2	8.6	5.0	5.9
Prof. Services		13.8	14.8	6.1	17.5	9.5	7.4	10.0	11.2	17.7	16.2	13.6	15.1	15.1
Other		1.9	3.1	1.4	4.1	2.0	1.6	2.2	2.3	2.1	1.7	1.4	3.4	2.0
Secondary Activity														
R & D	%	34.0	26.8	21.3	34.2	45.5	28.6	30.5	21.3	26.0	27.5	38.1	31.9	32.1
Teaching		17.5	6.7	6.8	13.4	16.4	16.0	11.6	13.9	8.3	15.2	18.1	20.9	17.1
Administration		14.4	16.5	26.5	13.0	5.9	12.5	15.7	19.3	17.7	14.0	15.3	14.2	14.7
Prof. Services		14.2	16.5	15.1	16.7	11.9	12.3	14.2	16.9	12.5	12.5	15.0	14.9	13.9
Other		1.4	0.7	0.8	3.7	0.8	1.2	1.2	1.7	1.0	1.0	1.2	1.6	1.2
No Secondary Activity		14.8	27.8	26.0	14.5	13.8	28.0	22.8	24.3	16.7	12.9	7.8	12.6	11.2
Activity(ies) Unknown	%	3.8	5.0	3.6	4.5	5.7	1.6	3.9	2.6	17.7	17.0	4.6	3.9	9.9
Region of Employment After Doctorate+														
New England	%	6.4	6.7	10.1	3.0	5.3	7.4	7.0	6.3	8.3	7.9	6.2	2.8	6.3
Middle Atlantic		14.2	15.3	21.1	9.3	14.0	19.6	16.9	12.5	16.7	14.5	9.9	7.1	11.4
East No. Central		13.3	12.7	15.3	6.3	16.6	8.4	12.5	11.9	15.6	11.8	14.4	9.9	12.5
West No. Central		6.8	4.1	6.8	2.2	8.5	4.9	5.7	4.4	3.1	6.5	7.9	10.1	7.6
South Atlantic		16.0	12.9	13.4	15.6	16.4	14.8	14.5	11.6	16.7	15.9	18.4	7.8	15.2
East So. Central		4.3	2.4	2.5	1.1	4.7	2.5	2.8	2.5	1.0	3.7	5.4	4.6	4.4
West So. Central		8.4	7.2	6.5	21.2	6.9	6.4	8.4	9.2	7.3	5.5	9.1	6.0	7.0
Mountain		5.3	6.0	3.1	11.5	5.3	3.5	5.2	5.5	6.3	5.1	4.3	7.3	5.4
Pacific & Insular		13.9	25.9	12.4	17.5	9.9	23.9	17.4	22.8	12.5	15.5	10.5	9.9	12.5
U.S., Region Unknown		0.8	0.2	0.6	1.5	0.6	1.0	0.7	0.5	2.1	1.8	1.1	1.1	1.4
Foreign		9.9	5.8	7.1	10.4	11.4	7.0	8.1	12.2	9.4	11.0	11.7	32.8	15.6
Region Unknown		0.7	0.7	1.1	0.4	0.4	0.6	0.7	0.8	1.0	0.8	1.1	0.7	0.9

NOTE: Field groupings may differ from those in reports published by federal sponsors of the Survey of Earned Doctorates. #Physical Sciences includes Mathematics and Computer Sciences, as well as Physics/Astronomy, Chemistry, and Earth/Atmospheric/Marine Sciences

SOURCE: NSF/NIH/NEH/USED/USDA, Survey of Earned Doctorates

APPENDIX TABLE A-3a. Statistical profile of doctorate recipients by major field, 1998

Total all doctorates

Psychology	Economics	Anthropology and Sociology	Political Sci/ International Rel.	Other Social Sciences	SOCIAL SCI. INCL. PSYCH.	TOTAL SCIENCES & ENGINEERING	History	Eng. and Amer. Lang. And Lit.	Foreign Lang. and Lit.	Other Humanities	HUMANITIES	EDUCATION	Business and Management	Other Professional Fields	Other Fields/ Unknown***	PROFESSIONAL OTHER FIELDS	TOTAL NONSCIENCES
3,681	998	974	759	663	7,075	28,273	988	1,076	642	2,793	5,499	6,559	1,165	1,093	94	2,352	14,390
32.7	72.5	43.7	63.5	55.7	45.3	63.9	61.0	42.3	41.6	53.3	51.2	36.9	67.2	47.9	55.3	57.8	45.7
66.8	27.2	55.7	36.4	43.4	54.2	35.7	39.0	57.7	58.1	46.4	48.6	62.8	32.1	51.9	39.4	41.6	54.0
0.4	0.3	0.5	0.1	0.9	0.4	0.5	0.0	0.0	0.3	0.3	0.2	0.3	0.7	0.2	5.3	0.6	0.3
86.0	41.0	75.2	76.2	64.3	75.1	59.4	84.0	87.9	63.1	73.8	77.1	84.3	65.7	78.2	26.6	69.9	79.3
2.5	8.0	4.7	4.9	6.6	4.2	7.3	4.1	2.3	14.0	6.5	6.1	2.6	6.5	4.4	3.2	5.4	4.4
4.1	41.3	13.0	11.5	20.4	12.9	25.8	6.1	5.2	14.3	11.8	9.8	6.5	21.3	12.1	10.6	16.6	9.4
7.4	9.7	7.1	7.5	8.7	7.8	7.5	5.8	4.6	8.6	7.9	7.0	6.6	6.5	5.3	59.6	8.1	6.9
26.8	32.5	24.4	25.6	24.4	26.9	29.4	24.0	27.5	26.3	28.1	27.1	14.2	20.0	22.9	5.3	20.7	20.2
44.5	51.2	52.4	53.5	55.4	48.5	52.7	56.4	47.7	48.9	49.3	50.2	59.6	57.4	56.7	14.9	55.4	55.4
7.0	3.8	9.3	6.5	6.2	6.7	4.3	7.6	8.6	9.5	6.4	7.4	10.9	7.5	9.1	2.1	8.0	9.1
5.4	3.5	5.4	4.6	4.2	4.9	3.8	4.9	8.2	6.5	5.1	5.8	2.6	3.0	3.1	2.1	3.0	3.9
0.2	0.4	0.1	0.1	0.8	0.3	0.1	0.3	0.4	0.5	0.2	0.3	0.9	0.1	0.8	0.0	0.4	0.6
16.2	8.6	8.3	9.7	9.0	12.7	9.7	6.9	7.6	8.3	10.9	9.2	12.0	12.0	7.4	75.5	12.4	10.9
32.5	31.8	35.1	33.0	36.0	33.2	31.9	34.8	34.4	34.6	35.6	35.1	44.3	36.0	39.3	37.7	37.5	39.2
58.5	56.2	73.9	52.7	21.3	56.2	58.6	51.7	64.1	0.0	49.3	46.9	35.0	33.0	27.9	8.5	29.6	38.7
74.7	71.8	86.1	78.3	87.3	77.5	67.6	83.6	83.7	83.3	82.7	83.2	87.7	79.8	90.9	27.7	82.9	85.3
9.0	9.0	11.0	10.0	12.5	9.9	9.0	11.5	11.0	11.0	12.0	11.6	20.0	12.6	15.3	12.9	13.7	14.9
7.1	7.0	8.7	7.9	8.0	7.5	7.0	8.6	8.4	8.4	8.9	8.7	8.4	7.7	8.0	7.5	8.0	8.4
28.0	6.6	17.6	10.1	13.1	20.2	33.9	9.2	6.6	7.5	6.7	7.2	4.7	3.9	5.8	3.2	4.8	5.7
20.8	2.8	11.2	7.0	7.4	14.2	18.0	6.2	4.9	3.4	4.0	4.5	1.8	1.3	2.0	3.2	1.7	2.8
4.5	2.8	5.0	2.2	4.5	4.1	13.6	1.5	0.3	2.0	1.4	1.3	1.6	2.0	2.4	0.0	2.1	1.5
2.0	0.5	0.6	0.3	0.9	1.3	1.0	0.4	0.2	0.9	0.4	0.4	0.6	0.3	0.6	0.0	0.5	0.5
0.6	0.5	0.7	0.7	0.3	0.6	1.3	1.1	1.2	1.1	0.9	1.0	0.6	0.3	0.7	0.0	0.5	0.8
54.2	82.8	71.3	78.4	73.3	65.0	54.5	80.1	83.4	81.8	79.3	80.5	80.5	82.1	83.7	22.3	80.5	80.6
21.3	41.6	48.0	51.0	38.0	32.6	18.5	59.2	65.5	63.9	56.6	59.7	60.9	60.8	50.3	16.0	54.1	59.4
12.0	18.8	6.9	7.4	14.0	11.9	22.9	6.0	6.5	7.5	8.2	7.4	6.1	13.4	11.9	1.1	12.2	7.6
5.9	13.1	5.2	6.1	8.9	7.1	5.4	2.8	0.7	1.1	1.8	1.7	3.4	2.9	5.4	2.1	4.0	2.8
7.5	3.3	4.4	5.4	6.2	6.1	2.6	2.3	1.2	1.2	4.5	3.1	3.9	1.5	9.4	2.1	5.2	3.8
7.5	5.9	6.7	8.6	6.2	7.2	5.1	9.7	9.4	8.1	8.3	8.7	6.2	3.6	6.7	1.1	4.9	7.0
17.8	10.6	11.2	11.5	13.6	14.8	11.6	10.7	10.0	10.7	14.0	12.2	14.9	13.9	10.5	74.5	14.8	13.7
20.6	4.3	11.1	6.6	8.3	14.3	25.0	5.7	4.6	4.2	4.0	4.5	2.8	2.6	3.1	3.2	2.8	3.4
7.3	2.3	6.5	3.6	4.8	5.9	8.9	3.5	2.0	3.3	2.6	2.7	1.9	1.4	2.7	0.0	1.9	2.2
36.2	61.4	44.0	48.7	51.4	43.6	37.0	44.9	47.1	47.5	48.0	47.2	59.2	68.8	58.6	17.0	62.0	55.1
18.0	21.3	27.2	29.6	21.9	21.4	17.4	35.1	36.2	34.3	31.3	33.3	21.3	13.4	25.1	5.3	18.5	25.5
1,332	613	429	370	341	3,085	10,473	444	507	305	1,341	2,597	3,881	801	641	16	1,458	7,936
19.6	48.6	26.8	24.3	34.3	28.6	49.0	7.2	4.3	4.9	8.5	7.0	5.3	30.8	12.3	25.0	22.6	9.0
19.3	30.5	55.7	55.4	34.3	32.6	23.7	75.5	80.3	83.0	70.8	74.9	40.2	51.9	51.8	43.8	51.8	53.7
5.8	4.2	4.7	5.7	11.1	5.9	3.9	5.6	6.5	2.6	5.3	5.3	39.2	5.6	13.9	6.3	9.3	22.6
50.8	10.1	7.9	7.6	14.1	27.5	16.5	6.8	3.6	4.3	9.3	7.2	11.2	7.9	17.8	18.8	12.3	10.1
1.3	4.1	2.3	4.6	2.6	2.5	2.3	2.0	1.2	2.6	2.1	2.0	1.0	1.7	1.7	6.3	1.8	1.5
28.2	36.5	52.2	51.9	37.2	37.1	30.2	61.3	55.4	65.2	46.8	53.1	26.2	50.2	44.5	43.8	47.6	38.9
20.1	24.8	19.3	20.0	17.9	20.7	16.0	10.4	8.5	8.9	13.0	11.2	22.7	29.8	19.5	18.8	25.2	19.4
17.3	9.0	11.0	10.3	13.8	13.5	15.9	9.7	12.2	10.2	14.4	12.7	13.5	6.4	12.5	9.1	12.4	
15.8	14.2	6.8	4.6	14.4	12.7	14.5	5.4	7.1	4.9	11.0	8.5	19.2	5.7	13.3	9.1	13.9	
1.4	1.1	1.6	2.2	0.6	1.4	1.4	0.5	1.6	0.3	3.3	2.1	1.1	0.2	1.2	0.0	0.7	1.4
13.9	12.1	6.8	8.6	12.6	11.8	17.6	9.9	11.0	8.2	8.2	9.0	14.4	5.7	6.6	12.5	6.2	11.1
3.3	2.3	2.3	2.4	3.5	2.9	4.5	2.9	4.1	2.3	3.4	3.3	2.9	1.9	2.5	0.0	2.1	2.9
6.1	7.8	9.1	6.2	10.3	7.3	6.7	10.4	7.5	7.9	7.6	8.1	4.3	6.8	5.0	12.5	6.0	5.9
18.8	15.2	13.3	16.2	11.7	16.2	14.3	15.1	17.2	19.0	14.7	15.7	12.6	14.8	14.0	6.3	14.3	13.9
12.5	8.0	14.2	10.3	13.2	11.6	12.1	11.7	16.2	15.7	15.7	15.1	14.9	15.8	13.3	6.3	14.6	14.9
8.9	2.6	5.8	4.3	5.3	6.3	5.9	8.1	7.1	8.9	6.4	7.1	6.5	7.0	0.0	6.7	8.0	
15.7	22.0	11.4	23.2	19.6	17.7	14.8	14.6	12.8	13.4	13.6	13.6	20.3	17.8	17.2	18.8	17.5	17.6
3.5	2.4	3.5	4.3	3.5	3.4	3.2	5.2	7.3	5.6	4.3	5.2	6.5	3.5	5.5	6.3	4.4	5.7
8.7	4.2	5.1	8.4	5.6	6.9	7.9	8.8	8.9	3.9	8.1	7.9	9.6	9.9	10.0	6.3	9.9	9.1
6.4	2.8	7.2	3.5	6.2	5.4	5.4	3.6	4.7	3.0	5.7	4.8	6.1	3.4	4.2	6.3	3.8	5.3
15.3	7.8	14.9	10.5	10.3	12.6	16.5	13.3	12.2	10.5	11.6	11.9	9.6	9.5	11.7	12.5	10.5	10.5
0.6	1.0	1.2	1.1	0.6	0.8	0.8	0.7	1.4	0.0	1.1	1.0	0.8	0.5	1.1	0.0	0.8	0.8
3.1	25.8	14.2	10.8	12.9	11.2	11.7	7.9	4.3	11.1	10.7	9.0	5.1	11.0	10.6	25.0	11.0	7.5
0.5	0.3	0.0	1.1	0.9	0.5	0.7	0.7	0.4	1.0	0.5	0.6	1.0	0.8	0.5	0.0	0.6	0.8

*Includes 174 respondents not reporting gender. **Includes 2-year, 4-year, and foreign colleges and universities, medical schools, and elementary/secondary schools.

***Includes 20 respondents whose doctoral field was unknown. +Includes only recipients with definite employment plans.

SOURCE: NSF/NIH/NEH/USED/USDA, Survey of Earned Doctorates

APPENDIX TABLE A-3b. Statistical profile of doctorate recipients by major field, 1998

Total men

	1998 Total	Physics and Astronomy	Chemistry	Earth, Atmos., and Marine Sci.	Mathematics	Computer Sciences	PHYSICAL SCIENCES#	ENGINEERING	Biochemistry	Other Biosciences	Health Sciences	Agricultural Sciences	LIFE SCIENCES	
Total Men	24,653	1,354	1,510	605	872	763	5,104	5,108	448	2,850	488	854	4,640	
Men as a Percent of Total Doctorates	%	57.8	85.5	68.1	72.2	74.1	82.7	75.7	86.3	56.1	56.4	32.5	71.6	54.3
U.S. Citizenship	%	59.8	53.2	58.7	59.3	46.2	48.1	53.6	42.5	58.9	62.9	53.7	41.7	57.7
Non-U.S., Permanent Visa		6.7	7.9	7.2	6.8	7.5	8.3	7.5	7.8	10.5	9.3	7.6	7.4	8.9
Non-U.S., Temporary Visa		26.0	31.9	27.7	26.8	39.4	37.9	32.2	41.9	23.2	22.2	26.8	43.2	26.7
Unknown		7.4	7.0	6.3	7.1	6.9	5.8	6.6	7.9	7.4	5.6	11.9	7.7	6.8
Never Married	%	27.1	39.8	32.6	26.1	38.8	30.0	34.4	31.3	29.9	28.9	18.9	14.8	25.3
Married		56.4	45.1	53.5	59.2	47.2	57.0	51.4	56.5	55.1	56.1	58.8	73.3	59.5
Separated, Divorced		3.6	2.7	2.5	3.8	2.6	2.9	2.8	2.0	2.0	3.5	3.1	2.9	3.2
Marriage-like Relationship		3.4	3.8	3.5	3.3	3.4	2.5	3.4	2.4	3.3	3.9	3.1	1.3	3.3
Widowed		0.1	0.0	0.0	0.2	0.0	0.0	0.0	0.1	0.0	0.0	0.0	0.1	0.0
Unknown		9.3	8.6	7.9	7.4	7.9	7.6	8.0	7.8	9.6	7.5	16.2	7.6	8.7
Median Age at Doct.	Yrs	33.1	30.1	29.7	34.0	30.6	32.9	30.8	31.7	30.5	31.7	35.4	35.2	32.3
Percent with Bacc. in Same Field as Doctorate	%	54.0	70.2	71.3	49.6	65.3	38.0	62.4	72.2	30.6	52.4	25.6	49.9	47.0
Percent with Masters	%	73.0	65.0	40.3	75.2	72.8	82.2	62.8	83.3	32.6	45.3	70.9	87.4	54.5
Median Time Lapse from Bacc. To Total Time Registered Time	Yrs	9.9	7.6	6.9	11.0	8.0	10.0	8.0	9.0	7.9	8.5	12.0	11.5	9.0
		7.2	6.9	6.0	7.6	6.6	7.5	6.7	6.7	6.8	7.0	7.5	7.0	7.0
Postdoctoral Study Plans	%	25.9	48.4	49.0	41.2	26.6	13.2	38.8	18.7	69.6	65.2	19.3	30.7	54.4
Fellowship		12.5	17.5	21.5	16.7	14.0	3.8	15.9	5.9	43.3	38.6	9.4	10.1	30.7
Research Assoc.		11.5	30.0	26.4	23.5	11.2	8.3	21.7	11.4	20.5	20.9	8.2	18.4	19.1
Traineeship		0.8	0.4	0.5	1.0	0.6	0.8	0.6	0.9	0.7	1.2	1.0	1.4	1.2
Other Study		1.1	0.5	0.7	0.0	0.8	0.4	0.5	0.5	5.1	4.6	0.6	0.8	3.5
Planned Employment														
After Doctorate	%	62.5	41.7	40.9	48.9	62.8	78.4	51.4	70.8	19.9	26.2	62.7	58.2	35.3
Educ. Institution*		27.7	6.6	6.7	15.2	31.1	23.1	14.3	10.3	4.5	8.5	28.3	20.7	12.4
Industry/Business		22.5	27.5	30.0	22.0	22.9	46.5	29.6	49.2	10.5	8.5	16.0	17.3	11.1
Government		5.2	3.4	1.7	6.0	3.0	4.3	3.3	7.3	0.9	3.0	10.7	11.8	5.2
Nonprofit		2.4	0.4	0.3	0.7	1.0	1.4	0.7	1.4	0.4	0.8	3.1	3.0	1.4
Other & Unknown		4.7	3.8	2.3	5.1	4.8	3.0	2.6	2.7	3.6	5.4	4.7	5.3	5.1
Postdoc. Plans Unknown	%	11.7	9.8	10.1	9.9	10.6	8.4	9.8	10.5	10.5	8.6	18.0	11.1	10.3
Definite Postdoc. Study	%	18.9	39.0	39.3	29.6	19.0	9.4	30.2	12.2	56.5	50.1	14.3	17.9	41.0
Seeking Postdoc. Study		7.0	9.5	9.7	11.6	7.6	3.8	8.6	6.5	13.2	15.1	4.9	12.8	13.4
Definite Employment		43.2	27.1	28.5	32.2	40.9	56.6	34.9	50.3	13.6	17.4	48.2	38.6	24.2
Seeking Employment		19.3	14.6	12.4	16.7	21.9	21.8	16.5	20.5	6.3	8.7	14.5	19.6	11.1
Employment Commitments After Doctorate		10,644	367	431	195	357	432	1,782	2,569	61	497	235	330	1,123
Primary Activity*														
R & D	%	40.6	62.9	74.2	51.8	40.9	65.7	60.7	72.8	42.6	39.0	43.8	53.3	44.4
Teaching		31.2	12.3	13.7	20.0	40.9	21.5	21.4	9.1	11.5	19.3	29.8	21.2	21.6
Administration		9.6	1.6	1.4	2.1	0.8	2.5	1.7	2.3	3.3	4.0	7.7	4.2	4.8
Prof. Services		12.6	15.0	5.3	17.4	9.0	7.2	9.8	11.3	21.3	17.1	10.2	15.2	15.3
Other		2.1	3.0	1.4	4.6	2.0	1.4	2.2	2.0	1.6	1.8	3.0	3.0	2.4
Secondary Activity														
R & D	%	31.9	25.6	19.3	31.8	41.7	27.3	28.4	21.1	24.6	26.2	35.3	31.5	29.6
Teaching		17.9	6.3	7.2	15.9	17.1	16.7	12.2	13.9	11.5	16.7	20.4	22.4	18.9
Administration		15.7	17.4	31.3	12.8	6.2	12.7	16.9	19.9	19.7	15.5	18.7	15.2	16.3
Prof. Services		14.0	18.0	14.8	19.0	13.2	12.0	14.9	17.0	9.8	10.5	13.2	15.5	12.5
Other		1.3	0.5	0.7	3.1	0.8	0.9	1.0	1.8	1.6	0.8	1.3	0.9	1.0
No Secondary Activity		15.5	27.0	23.2	13.8	14.8	28.7	22.6	23.7	14.8	12.1	5.5	11.5	10.7
Activity(ies) Unknown	%	3.7	5.2	3.5	3.6	6.2	1.6	3.9	2.5	18.0	18.3	5.5	3.0	11.1
Region of Employment														
After Doctorate+														
New England	%	6.3	6.8	10.4	3.1	5.3	7.9	7.2	6.2	4.9	7.2	7.7	2.7	5.9
Middle Atlantic		13.5	15.0	20.9	7.2	13.8	19.0	16.3	12.0	23.0	14.5	8.9	5.8	11.2
East No. Central		12.8	12.3	15.5	5.6	16.9	7.6	12.1	12.1	18.0	10.7	11.9	9.1	10.9
West No. Central		6.4	4.6	7.0	2.6	8.1	4.4	5.6	4.2	4.9	5.6	8.5	9.7	7.4
South Atlantic		14.8	13.1	11.1	16.4	16.0	14.6	13.9	11.6	13.1	16.1	16.6	7.9	13.6
East So. Central		3.9	2.5	2.8	0.5	5.3	1.6	2.7	2.5	1.6	3.2	4.3	5.5	4.0
West So. Central		8.3	7.7	6.0	23.6	6.7	6.3	8.5	9.4	8.2	5.4	9.4	5.2	6.3
Mountain		5.2	6.3	3.5	10.8	4.8	3.5	5.1	5.5	8.2	5.8	4.7	6.7	6.0
Pacific & Insular		15.1	24.6	13.9	17.9	9.8	25.7	18.6	22.8	8.2	16.1	9.8	9.1	12.3
U.S., Region Unknown		0.7	0.3	0.7	0.5	0.6	0.9	0.6	0.6	1.6	2.0	0.9	1.2	1.5
Foreign		12.3	6.3	6.7	11.3	12.1	7.9	8.5	12.4	8.2	12.3	16.6	36.4	20.0
Region Unknown		0.7	0.5	1.4	0.5	0.6	0.7	0.8	0.7	0.0	1.0	0.9	0.9	0.9

SOURCE: NSF/NIH/NEH/USED/USDA, Survey of Earned Doctorates

APPENDIX TABLE A-3b. Statistical profile of doctorate recipients by major field, 1998

Total men

Psychology	Economics	Anthropology and Sociology	Political Sci./ International Rel.	Other Social Sciences	SOCIAL SCI. INCL. PSYCH.	TOTAL SCIENCES & ENGINEERING	History	Eng. and Amer. Lang. And Lit.	Foreign Lang. and Lit.	Other Humanities	HUMANITIES	EDUCATION	Business and Management	Other Professional Fields	Other Fields/ Unknown	PROFESSIONAL/ OTHER FIELDS	TOTAL NONSCIENCES
1,205	724	426	482	369	<u>3,206</u>	<u>18,058</u>	603	455	267	1,489	<u>2,814</u>	<u>2,422</u>	783	524	52	<u>1,359</u>	<u>6,582</u>
32.7	72.5	43.7	63.5	55.7	45.3	63.9	61.0	42.3	41.6	53.3	51.2	36.9	67.2	47.9	55.3	57.8	45.7
84.4	39.8	70.9	73.4	59.9	68.1	54.1	82.1	87.0	64.4	73.9	76.9	81.4	60.2	70.6	17.3	62.5	75.7
2.7	7.6	5.4	4.8	7.6	5.0	7.5	4.6	2.2	10.9	6.0	5.5	2.9	7.0	5.0	3.8	6.1	4.7
5.1	43.9	16.4	13.5	22.5	18.7	31.1	6.3	7.3	16.5	11.2	10.0	8.6	26.1	18.3	13.5	22.6	12.1
7.8	8.7	7.3	8.3	10.0	8.3	7.3	7.0	3.5	8.2	8.9	7.5	7.1	6.8	6.1	65.4	8.8	7.5
25.5	31.1	23.0	24.3	19.5	25.5	29.6	23.4	29.7	31.8	26.5	26.8	12.9	19.7	20.6	3.8	19.4	20.2
48.0	54.0	58.9	55.6	63.7	53.7	55.3	60.2	49.0	45.7	52.8	53.1	66.2	61.3	62.6	9.6	59.8	59.4
5.6	3.3	6.8	5.2	4.9	5.1	3.1	3.3	4.8	6.4	4.2	4.3	6.2	5.1	5.0	1.9	4.9	5.2
6.3	3.7	4.2	4.1	3.5	4.8	3.3	4.8	8.8	7.1	4.6	5.6	2.3	2.0	2.5	0.0	2.1	3.7
0.0	0.3	0.0	0.0	0.0	0.1	0.0	0.2	0.4	0.0	0.3	0.2	0.4	0.0	0.4	0.0	0.1	0.3
14.6	7.6	7.0	10.8	8.4	10.7	8.6	8.1	7.3	9.0	11.6	9.9	12.0	11.9	9.0	84.6	13.5	11.3
33.1	32.2	35.2	33.5	35.8	33.5	32.0	34.7	33.8	34.5	35.6	34.9	43.3	35.9	38.6	34.8	37.0	37.8
57.7	54.6	76.8	55.6	23.0	55.2	59.9	51.6	66.4	0.0	50.5	48.5	29.9	32.2	27.3	5.8	29.3	37.8
74.8	72.9	87.3	77.8	87.5	77.9	69.2	83.1	82.6	80.5	80.7	81.5	87.2	80.2	87.8	21.2	80.9	83.6
9.3	9.3	11.0	10.1	12.0	10.0	8.9	11.2	10.9	10.1	12.0	11.3	18.9	12.3	15.0	9.1	13.1	13.8
7.3	7.0	8.9	8.0	8.1	7.6	7.0	8.3	8.0	8.0	8.6	8.3	8.4	7.6	8.5	8.2	7.9	8.3
25.9	7.3	20.0	11.0	13.0	17.2	33.3	8.8	7.9	8.2	5.8	7.0	4.6	3.7	5.5	1.9	4.3	5.6
18.3	2.9	12.7	6.8	6.8	11.0	16.0	5.5	5.5	4.1	3.3	4.2	1.7	1.3	2.1	1.9	1.6	2.7
5.4	3.3	5.4	2.9	4.9	4.5	15.0	2.2	0.4	1.9	1.2	1.4	1.7	1.9	2.3	0.0	2.0	1.6
1.9	0.6	0.9	0.2	1.1	1.1	0.9	0.3	0.2	1.5	0.3	0.4	0.7	0.4	0.8	0.0	0.5	0.5
0.2	0.6	0.9	1.0	0.3	0.5	1.3	0.8	1.8	0.7	1.0	1.1	0.5	0.1	0.4	0.0	0.2	0.7
58.3	82.3	69.5	75.5	72.9	69.5	56.0	79.9	82.4	81.3	79.9	80.5	80.3	82.6	82.1	15.4	80.5	80.4
23.8	40.7	45.8	49.4	38.2	36.1	16.5	58.0	64.6	61.4	56.7	58.7	60.9	60.2	46.6	9.6	53.0	58.4
13.8	19.2	8.5	7.1	14.6	13.4	27.5	7.0	6.6	8.6	8.3	7.7	6.9	14.9	11.8	1.9	13.2	8.6
7.1	14.0	5.6	8.1	11.1	9.0	5.9	3.3	0.4	1.9	1.6	1.8	3.9	3.1	7.1	0.0	4.5	3.1
8.0	3.0	2.6	4.4	4.3	5.2	1.9	3.0	0.9	1.5	5.1	3.6	3.9	1.3	11.5	0.0	5.2	4.0
5.6	5.4	7.0	6.6	4.6	5.8	4.1	8.6	9.9	7.9	8.2	8.5	4.8	3.2	5.2	0.0	3.8	6.2
15.9	10.4	10.6	13.5	14.1	13.3	10.8	11.3	9.7	10.5	14.3	12.5	15.0	13.7	12.4	86.5	16.0	14.0
18.9	4.8	12.7	7.1	7.3	11.8	24.6	5.3	5.3	4.9	3.0	4.1	2.8	2.4	2.7	1.9	2.5	3.3
7.0	2.5	7.3	3.9	5.7	5.4	8.7	3.5	2.6	3.4	2.8	2.9	1.9	1.3	2.9	0.0	1.8	2.3
41.6	59.9	38.5	45.9	52.3	47.2	38.7	41.8	46.2	46.8	49.4	47.0	61.0	69.9	58.2	9.6	63.1	55.6
16.7	22.4	31.0	29.7	20.6	22.3	17.3	38.1	36.3	34.5	30.5	33.4	19.4	12.8	23.9	1.9	16.6	24.9
501	434	164	221	193	1,513	6,987	252	210	125	736	1,323	1,477	546	305	5	857	3,657
22.4	50.2	28.0	25.8	32.1	32.7	56.5	7.9	2.4	3.2	8.3	6.8	5.1	32.5	10.2	20.0	24.5	10.3
20.0	28.3	51.8	52.5	37.8	32.8	19.4	72.2	82.4	82.4	70.1	73.6	37.2	49.7	53.1	60.0	51.0	53.6
4.8	5.1	4.9	5.9	8.3	5.5	3.2	6.7	5.7	2.4	5.7	5.6	44.3	5.5	13.8	0.0	8.4	21.9
48.3	9.0	9.8	8.1	15.0	22.7	14.0	9.9	4.3	6.4	10.6	9.1	9.4	8.0	19.7	20.0	12.3	10.0
1.6	4.4	3.0	5.0	3.6	3.3	2.4	2.0	1.0	4.0	1.9	2.0	0.9	2.0	2.0	0.0	2.0	1.5
29.3	33.6	51.8	48.0	42.5	37.4	27.9	59.5	54.8	67.2	44.4	51.1	25.9	48.3	41.3	80.0	46.0	39.7
23.2	27.2	24.4	22.2	18.7	23.7	16.4	10.3	7.1	7.2	13.3	11.2	26.3	30.0	19.3	20.0	26.1	20.8
16.8	10.6	8.5	10.0	14.5	12.8	17.0	10.3	16.2	8.8	16.6	14.6	13.8	6.6	16.1	0.0	9.9	13.2
16.4	13.6	5.5	5.0	10.4	12.0	14.7	7.5	5.2	5.6	11.4	9.1	17.7	6.2	14.4	0.0	9.1	12.6
1.0	0.9	2.4	1.8	0.5	1.2	1.3	0.8	1.4	0.0	3.0	2.0	0.9	0.0	1.0	0.0	0.4	1.2
10.4	11.3	5.5	10.4	10.4	10.1	18.4	10.3	11.0	9.6	8.6	9.4	12.6	6.9	6.6	0.0	6.8	10.1
3.0	2.8	1.8	2.7	3.1	2.8	4.3	1.2	4.3	1.6	2.7	2.6	2.8	2.0	1.3	0.0	1.8	2.5
5.8	7.1	5.5	5.4	8.3	6.4	6.4	9.1	10.0	6.4	8.0	8.4	4.3	5.5	4.6	20.0	5.3	6.0
16.4	14.1	9.8	14.9	9.3	13.9	13.4	15.5	17.6	18.4	13.2	14.8	12.9	14.8	11.5	0.0	13.5	13.7
12.6	8.5	16.5	10.4	11.9	11.4	11.8	10.7	16.7	12.8	15.6	14.6	15.2	15.5	12.5	0.0	14.4	14.8
10.4	3.5	5.5	1.8	5.7	6.0	5.5	9.1	6.7	8.8	6.9	7.5	10.1	6.9	5.2	0.0	6.3	8.3
16.4	20.7	11.6	21.3	21.2	18.4	14.0	16.7	13.3	18.4	13.0	14.3	17.5	16.6	18.0	20.0	17.2	16.2
3.6	2.1	3.0	4.1	3.6	3.2	3.0	4.8	7.1	4.8	4.8	5.1	6.8	3.5	5.9	0.0	4.3	5.6
9.6	4.1	5.5	7.7	5.7	6.8	8.1	8.7	8.1	4.8	9.0	8.4	8.2	9.5	10.8	20.0	10.0	8.7
6.0	3.2	7.3	4.1	5.7	5.0	5.4	1.6	3.3	4.8	5.4	4.3	6.1	2.7	3.9	0.0	3.2	4.8
15.0	6.7	15.2	12.7	8.8	11.5	17.6	11.9	10.0	11.2	11.4	11.3	9.6	10.1	10.5	0.0	10.2	10.3
0.2	0.7	1.2	1.4	1.0	0.7	0.8	0.8	1.0	0.0	1.2	1.0	0.5	0.5	0.7	0.0	0.6	0.7
4.0	28.8	18.9	14.9	17.1	16.0	13.4	10.3	6.2	8.0	11.0	9.8	8.0	13.5	16.4	40.0	14.7	10.2
0.2	0.5	0.0	1.4	1.6	0.6	0.7	0.8	0.0	1.6	0.4	0.5	0.8	0.7	0.0	0.0	0.5	0.6

NOTE: Field groupings may differ from those in reports published by federal sponsors of the Survey of Earned Doctorates. #Physical Sciences includes Mathematics and Computer Sciences, as well as Physics/Astronomy, Chemistry, and Earth/Atmospheric/Marine Sciences.

*Includes 2-year, 4-year, and foreign colleges and universities, medical schools, and elementary/secondary schools. +Includes only recipients with definite employment plans

SOURCE: NSF/NIH/NEH/USED/USDA, Survey of Earned Doctorates

APPENDIX TABLE A-3c. Statistical profile of doctorate recipients by major field, 1998

Total women

	1998 Total	Physics and Astronomy	Chemistry	Earth, Atmos., and Marine Sci.	Mathematics	Computer Sciences	PHYSICAL SCIENCES#	ENGINEERING	Biochemistry	Other Biosciences	Health	Agricultural Sciences	LIFE SCIENCES	
Total Women	17,856	223	695	228	297	157	1,600	769	349	2,184	1,006	337	3,876	
Women as a Percent of Total Doctorates	%	41.8	14.1	31.3	27.2	25.2	17.0	23.7	13.0	43.7	43.2	67.1	28.3	45.4
U.S. Citizenship	%	75.3	50.2	55.8	67.1	57.2	63.7	57.7	48.1	56.4	67.4	76.8	50.7	67.4
Non-U.S., Permanent Visa		5.7	9.9	10.1	10.1	9.1	12.7	10.1	10.0	13.2	8.9	4.4	10.4	8.2
Non-U.S., Temporary Visa		12.4	30.0	27.3	18.0	25.3	12.7	24.6	32.2	26.1	18.4	10.6	32.0	18.2
Unknown		6.6	9.9	6.8	4.8	8.4	10.8	7.6	9.6	4.3	5.4	8.2	6.8	6.1
Never Married	%	25.4	34.5	35.7	31.1	30.3	14.0	31.8	33.3	27.8	32.4	20.4	30.9	28.7
Married		50.2	44.4	48.6	50.4	51.9	51.6	49.2	48.0	58.7	50.4	55.7	50.7	52.6
Separated, Divorced		9.1	3.6	2.6	6.1	3.4	11.5	4.3	4.2	3.4	4.8	10.0	7.4	6.2
Marriage-like Relationship		4.4	4.9	4.7	6.1	4.4	3.8	4.8	4.6	5.2	5.1	2.6	3.0	4.3
Widowed		0.5	0.0	0.0	0.0	0.7	0.0	0.1	0.3	0.0	0.1	0.6	0.0	0.2
Unknown		10.4	12.6	8.3	6.1	9.4	19.1	9.9	9.8	4.9	7.1	10.7	8.0	7.9
Median Age at Doct.	Yrs	34.8	29.9	29.3	32.2	30.8	34.8	30.3	30.4	30.3	30.8	40.8	33.2	32.3
Percent with Bacc. in Same Field as Doctorate	%	49.2	69.1	72.4	46.5	68.7	28.7	63.3	66.1	25.5	56.4	52.7	41.8	51.4
Percent with Masters	%	74.8	69.5	36.3	73.2	70.7	79.0	56.8	79.1	34.4	39.9	83.0	82.2	54.3
Median Time Lapse from Bacc. To Total Time Registered Time	Yrs	11.3	7.5	6.6	9.3	8.3	12.4	7.7	8.0	8.0	8.2	16.3	10.5	9.4
		7.6	6.8	6.0	7.4	6.9	8.5	6.5	6.5	6.9	6.7	8.2	7.0	7.0
Postdoctoral Study Plans	%	22.5	42.2	44.6	39.9	20.2	9.6	35.6	20.5	71.9	66.1	15.1	34.4	50.6
Fellowship		13.6	14.8	20.4	20.6	11.4	3.2	16.3	6.6	44.7	43.4	10.2	10.7	32.1
Research Assoc.		6.9	26.0	22.9	18.9	6.7	5.7	18.1	12.7	21.2	18.3	3.6	23.4	15.2
Traineeship		0.8	0.9	0.6	0.0	1.7	0.6	0.8	0.3	1.4	1.2	0.6	0.0	1.0
Other Study		1.1	0.4	0.7	0.4	0.3	0.0	0.5	0.9	4.6	3.2	0.7	0.3	2.4
Planned Employment														
After Doctorate	%	64.9	43.9	45.8	51.8	67.7	73.2	53.1	68.1	20.9	25.7	71.9	54.6	39.8
Educ. Institution*		38.9	9.9	9.1	17.5	38.0	35.7	18.4	14.0	5.2	9.7	39.8	19.3	17.9
Industry/Business		11.4	22.0	31.1	18.4	22.2	29.9	26.3	42.4	7.7	6.9	9.8	19.9	8.9
Government		3.7	3.6	2.2	5.7	2.7	4.5	3.2	5.6	0.9	2.1	6.6	8.0	3.7
Nonprofit		3.9	0.9	0.4	3.1	1.0	0.0	0.9	0.8	0.6	1.2	8.2	1.8	3.0
Other & Unknown		7.1	7.6	3.0	7.0	3.7	3.2	4.4	5.3	6.6	5.8	7.6	5.6	6.3
Postdoc. Plans Unknown	%	12.7	13.9	9.6	8.3	12.1	17.2	11.3	11.3	7.2	8.2	13.0	11.0	9.6
Definite Postdoc. Study	%	16.3	33.6	35.4	29.4	13.5	7.6	27.5	13.1	53.3	49.6	10.5	22.6	37.5
Seeking Postdoc. Study		6.2	8.5	9.2	10.5	6.7	1.9	8.1	7.4	18.6	16.4	4.6	11.9	13.2
Definite Employment		43.4	22.4	29.4	32.5	46.1	52.2	34.2	46.3	9.7	15.5	52.0	31.5	25.9
Seeking Employment		21.5	21.5	16.4	19.3	21.5	21.0	18.9	21.8	11.2	10.2	19.9	23.1	13.9
Employment Commitments After Doctorate		7,749	50	204	74	137	82	547	356	34	339	523	106	1,002
Primary Activity+														
R & D	%	19.6	50.0	61.3	36.5	29.9	42.7	46.3	66.6	41.2	33.3	25.4	40.6	30.2
Teaching		44.2	26.0	24.5	35.1	51.8	39.0	35.1	13.5	23.5	30.4	45.5	25.5	37.5
Administration		15.2	2.0	1.0	1.4	0.7	6.1	1.8	1.4	2.9	4.4	9.0	7.5	7.1
Prof. Services		15.3	14.0	7.8	17.6	10.9	8.5	10.6	10.7	11.8	15.0	15.1	15.1	15.0
Other		1.7	4.0	1.5	2.7	2.2	2.4	2.2	4.2	2.9	1.5	0.8	4.7	1.5
Secondary Activity														
R & D	%	36.8	36.0	25.5	40.5	55.5	35.4	37.5	22.8	29.4	29.5	39.2	33.0	34.9
Teaching		16.9	10.0	5.9	6.8	14.6	12.2	9.5	13.8	2.9	13.0	17.0	16.0	15.1
Administration		12.5	10.0	16.2	13.5	5.1	11.0	11.7	14.3	14.7	11.8	13.8	11.3	12.9
Prof. Services		14.6	6.0	15.7	10.8	8.8	13.4	12.1	16.0	14.7	15.6	15.9	13.2	15.5
Other		1.5	2.0	1.0	5.4	0.7	2.4	1.8	1.1	0.0	1.2	1.1	3.8	1.4
No Secondary Activity		13.8	32.0	31.9	16.2	10.9	24.4	23.4	28.7	20.6	13.9	8.8	16.0	11.7
Activity(ies) Unknown	%	3.9	4.0	3.9	6.8	4.4	1.2	4.0	3.4	17.6	15.0	4.2	6.6	8.6
Region of Employment														
After Doctorate+														
New England	%	6.5	6.0	9.3	2.7	5.1	4.9	6.4	7.0	14.7	8.8	5.5	2.8	6.7
Middle Atlantic		15.1	18.0	21.6	14.9	14.6	23.2	18.8	15.7	5.9	14.5	10.3	11.3	11.7
East No. Central		14.0	16.0	14.7	8.1	16.1	12.2	13.9	10.1	11.8	13.6	15.5	12.3	14.4
West No. Central		7.3	0.0	6.4	1.4	9.5	7.3	6.0	5.6	0.0	7.7	7.6	11.3	7.8
South Atlantic		17.7	12.0	18.1	13.5	17.5	15.9	16.5	12.1	23.5	15.6	19.3	7.5	17.0
East So. Central		4.9	2.0	2.0	2.7	2.9	7.3	3.1	2.2	0.0	4.4	5.9	1.9	4.8
West So. Central		8.5	4.0	7.4	14.9	7.3	7.3	8.0	7.3	5.9	5.6	9.0	8.5	7.7
Mountain		5.5	4.0	2.5	13.5	6.6	3.7	5.3	5.6	2.9	4.1	4.2	9.4	4.7
Pacific & Insular		12.4	36.0	9.3	16.2	10.2	14.6	13.7	22.8	20.6	14.7	10.9	12.3	12.7
U.S., Region Unknown		1.0	0.0	0.5	4.1	0.7	1.2	1.1	0.3	2.9	1.5	1.1	0.9	1.3
Foreign		6.5	2.0	7.8	8.1	9.5	2.4	6.9	10.4	11.8	9.1	9.6	21.7	10.8
Region Unknown		0.7	0.0	0.5	0.0	0.0	0.0	0.2	0.8	0.0	0.3	1.0	0.0	0.6

SOURCE: NSF/NIH/NEH/USED/USDA, Survey of Earned Doctorates

APPENDIX TABLE A-3c. Statistical profile of doctorate recipients by major field, 1998

Total women

Psychology	Economics	Anthropology and Sociology	Political Sci./ International Rel.	Other Social Sciences	SOCIAL SCI. INCL. PSYCH.	TOTAL SCIENCES & ENGINEERING	History	Eng. and Amer. Lang. and Lit.	Foreign Lang. and Lit.	Other Humanities	HUMANITIES	EDUCATION	Business and Management	Other Professional Fields	Other Field/ Unknown	PROFESSIONAL/ OTHER FIELDS	TOTAL NONSCIENCES
2,460	271	543	276	288	<u>3,838</u>	<u>10,083</u>	385	621	373	1,296	<u>2,675</u>	<u>4,120</u>	374	567	37	<u>978</u>	<u>7,768</u>
66.8	27.2	55.7	36.4	43.4	54.2	35.7	39.0	57.7	58.1	46.4	48.6	62.8	32.1	51.9	39.4	41.6	54.0
87.2	44.6	79.2	81.2	70.8	81.4	69.7	87.0	88.6	62.2	74.0	77.6	86.3	78.3	85.5	40.5	81.1	82.7
2.4	9.2	4.2	5.1	5.6	3.6	6.9	3.4	2.4	16.4	6.9	6.7	2.4	5.6	3.9	3.1	4.5	4.1
3.6	34.7	10.3	8.0	18.1	8.2	16.5	5.7	3.7	12.9	12.5	9.5	5.2	11.5	6.3	8.1	8.4	7.1
6.8	11.4	6.3	5.8	5.6	6.9	6.9	3.9	5.3	8.6	6.6	6.2	6.1	4.5	4.2	48.6	6.0	6.1
27.6	36.5	25.8	27.9	31.3	28.2	29.4	24.9	25.9	22.5	30.2	27.4	15.0	21.1	25.0	8.1	22.9	20.2
43.1	44.3	47.7	50.0	45.8	44.5	48.6	50.4	46.7	51.2	45.5	47.3	55.9	50.5	51.5	24.3	50.1	52.3
7.7	5.2	11.4	8.7	8.0	8.2	6.5	14.3	11.4	11.8	8.9	10.7	13.6	12.6	12.9	3.1	12.4	12.5
4.9	3.0	6.4	5.4	5.2	5.1	4.7	4.9	7.7	6.2	5.7	6.1	2.8	5.1	3.7	5.4	4.3	4.1
0.3	0.7	0.2	0.4	1.7	0.4	0.3	0.5	0.3	0.8	0.2	0.3	1.1	0.3	1.2	0.0	0.8	0.8
16.4	10.3	8.5	7.6	8.0	13.6	10.5	4.9	7.9	7.5	9.5	8.2	11.6	10.4	5.6	59.5	9.5	10.1
32.2	30.9	34.8	32.3	36.7	32.8	31.9	35.3	34.9	34.8	35.5	35.2	44.8	36.5	39.9	40.9	39.0	40.6
59.3	60.9	72.0	47.8	19.1	57.3	56.6	51.9	62.5	0.0	48.1	45.3	38.1	35.0	28.6	13.5	30.5	39.6
75.2	69.0	85.8	79.3	87.8	77.5	65.4	84.4	84.5	85.8	85.4	85.1	88.3	79.7	94.0	40.5	86.5	87.0
9.0	8.5	11.0	9.9	12.7	9.6	9.0	11.9	11.3	11.4	12.2	11.9	20.6	13.0	15.8	15.7	14.6	16.0
7.0	7.0	8.6	7.8	8.0	7.4	7.0	9.0	8.6	8.5	9.0	9.0	8.4	7.9	8.0	6.8	8.0	8.6
29.1	4.8	15.7	8.7	13.5	22.9	35.4	9.9	5.6	7.0	7.8	7.5	4.7	4.5	6.0	5.4	5.4	5.7
22.2	2.6	9.9	7.2	8.3	17.0	21.9	7.3	4.5	2.9	4.8	4.8	1.9	1.3	1.9	5.4	1.8	2.9
4.1	1.5	4.8	1.1	4.2	3.8	11.1	0.5	0.2	2.1	1.6	1.2	2.1	2.5	0.0	2.2	1.5	
2.0	0.4	0.4	0.4	0.7	1.5	1.1	0.5	0.2	0.5	0.5	0.4	0.5	0.3	0.5	0.0	0.4	0.5
0.8	0.4	0.6	0.0	0.3	0.7	1.3	1.6	0.8	1.3	0.8	1.0	0.7	0.8	1.1	0.0	0.9	0.8
52.6	84.1	73.1	83.7	75.0	61.6	52.4	80.3	84.1	82.3	79.2	80.9	80.8	82.4	85.5	40.5	82.6	81.1
20.2	43.9	50.3	54.0	38.2	29.9	22.3	61.0	66.2	65.7	56.8	60.8	61.1	63.4	54.0	27.0	56.5	60.5
11.2	18.1	5.7	8.0	13.5	10.8	14.9	4.4	6.4	6.7	8.2	7.0	5.6	10.2	12.0	0.0	10.9	6.8
5.4	11.1	5.0	2.5	6.3	5.6	4.5	2.1	1.0	0.5	1.9	1.5	3.1	2.7	3.9	5.4	3.5	2.6
7.4	4.1	5.9	7.2	8.7	7.0	4.0	1.3	1.4	1.1	3.8	2.5	4.0	1.9	7.6	5.4	5.3	3.6
8.5	7.0	6.3	12.0	8.3	8.3	6.7	11.4	9.0	8.3	8.5	9.0	7.0	4.3	8.1	2.7	6.4	7.6
18.3	11.1	11.2	7.6	11.5	15.5	12.2	9.9	10.3	10.7	13.0	11.6	14.5	13.1	8.5	54.1	12.0	13.1
21.6	3.0	9.9	5.8	9.7	16.6	26.1	6.2	4.2	3.8	5.2	4.9	2.8	2.9	3.5	6.3	3.4	3.6
7.6	1.8	5.7	2.9	3.8	6.3	9.3	3.6	1.4	3.2	2.5	2.5	1.9	1.6	2.5	0.0	2.0	2.1
33.8	65.7	48.8	54.0	51.0	40.9	34.5	49.9	47.8	48.0	46.7	47.6	58.3	67.4	59.3	29.7	61.2	55.0
18.8	18.5	24.3	29.7	24.0	20.7	17.9	30.4	36.2	34.3	32.5	33.3	22.5	15.0	26.3	10.8	21.4	26.1
831	178	265	149	147	<u>1,570</u>	<u>3,475</u>	192	297	179	605	<u>1,273</u>	<u>2,402</u>	252	336	11	<u>599</u>	<u>4,274</u>
17.9	44.4	26.0	22.1	36.7	24.5	33.9	6.3	5.7	6.1	8.8	7.3	5.4	27.0	14.3	27.3	19.9	8.0
18.9	36.0	58.1	59.7	29.9	32.4	32.3	79.7	78.8	83.2	71.7	76.2	42.1	57.1	50.6	36.4	53.1	53.8
6.4	2.2	4.5	5.4	15.0	6.3	5.3	4.2	7.1	2.8	4.8	4.9	36.1	6.0	14.0	9.1	10.5	23.3
52.2	12.9	6.8	6.7	12.9	32.1	21.6	2.6	3.0	2.8	7.8	5.2	12.3	7.1	16.1	18.2	12.4	10.2
1.1	3.4	1.9	4.0	1.4	1.8	2.0	2.1	1.3	1.7	2.3	2.0	1.1	1.2	1.5	9.1	1.5	1.4
27.6	43.8	52.5	57.7	30.6	36.8	34.9	63.5	55.9	64.2	49.8	55.3	26.4	54.4	47.3	27.3	49.9	38.3
18.3	19.1	16.2	16.8	17.0	17.8	15.3	10.4	9.4	10.1	12.6	11.2	20.5	29.8	19.6	18.2	23.9	18.2
17.7	5.1	12.5	10.7	12.2	14.2	13.4	8.9	9.4	10.6	11.7	10.6	13.3	6.0	9.2	18.2	8.0	11.8
15.4	15.7	7.5	4.0	19.7	13.4	14.1	2.6	8.4	4.5	10.4	7.9	20.1	4.4	12.2	18.2	9.0	15.0
1.6	1.7	1.1	2.7	0.7	1.5	1.5	0.0	1.7	0.6	3.6	2.2	1.3	0.8	1.5	0.0	1.2	1.5
16.0	13.5	7.5	6.0	15.6	13.3	16.0	9.4	11.1	7.3	7.8	8.7	15.5	3.2	6.5	18.2	5.3	12.1
3.5	1.1	2.6	2.0	4.1	3.0	4.8	5.2	4.0	2.8	4.1	4.1	2.9	1.6	3.6	0.0	2.7	3.2
6.3	9.6	11.3	7.4	12.9	8.2	7.4	12.0	5.7	8.9	7.1	7.8	4.3	9.6	5.4	9.1	7.2	5.7
20.2	18.0	15.5	18.1	15.0	18.5	16.3	14.6	16.8	19.0	16.5	16.7	12.4	14.3	16.4	9.1	15.4	14.1
12.4	6.7	12.8	10.1	15.0	11.8	12.7	13.0	15.8	17.9	15.7	15.6	14.7	16.3	14.0	9.1	14.9	15.0
8.1	0.6	6.0	8.1	4.8	6.6	6.7	6.8	7.4	8.9	5.8	6.8	8.5	5.6	8.6	0.0	7.2	7.8
15.3	25.3	11.3	26.2	17.7	17.0	16.4	12.0	12.5	10.1	14.4	13.0	22.0	20.3	16.4	18.2	18.1	18.8
3.5	3.4	3.8	4.7	3.4	3.6	3.7	5.7	7.4	6.1	3.8	5.3	6.4	3.6	5.1	9.1	4.5	5.8
8.2	4.5	4.9	9.4	5.4	7.1	7.4	8.9	9.4	3.4	6.9	7.3	10.4	10.8	9.2	0.0	9.7	9.4
6.6	1.7	7.2	2.7	6.8	5.8	5.4	6.3	5.7	1.7	6.0	5.3	6.1	4.8	4.5	9.1	4.7	5.7
15.5	10.7	14.7	7.4	12.2	13.8	14.4	15.1	13.8	10.1	11.7	12.5	9.7	8.4	12.8	18.2	11.0	10.7
0.8	1.7	1.1	0.7	0.0	0.9	1.0	0.5	1.7	0.0	1.0	0.9	1.0	0.4	1.5	0.0	1.0	1.0
2.5	18.0	11.3	4.7	6.8	6.4	8.1	4.7	3.0	13.4	10.4	8.2	3.4	5.6	5.4	18.2	5.7	5.1
0.6	0.0	0.0	0.7	0.0	0.4	0.5	0.5	0.7	0.6	0.7	0.6	1.1	0.4	0.9	0.0	0.7	0.9

NOTE: Field groupings may differ from those in reports published by federal sponsors of the Survey of Earned Doctorates. #Physical Sciences includes Mathematics and Computer Sciences, as well as Physics/Astronomy, Chemistry, and Earth/Atmospheric/Marine Sciences.

*Includes 2-year, 4-year, and foreign colleges and universities, medical schools, and elementary/secondary schools.

+Includes only recipients with definite employment plans.

SOURCE: NSF/NIH/NEH/USED/USDA, Survey of Earned Doctorates

APPENDIX TABLE A-4. Statistical profile of doctorate recipients, by race/ethnicity and citizenship, 1998

	Total*	Non-U.S.				American Indian†	Asian‡				Black			
		Total	U.S.	Perm.	Temp.		Total	U.S.	Perm.	Temp.	Total	U.S.	Perm.	Temp.
Total Number	42,683	28,218	2,696	8,642		189	8,575	1,168	1,552	5,388	1,903	1,467	119	254
Male	%	57.8	52.3	61.6	74.3	55.0	70.3	55.1	63.5	75.4	43.1	35.4	73.1	68.5
Female		41.8	47.7	37.8	25.6	45.0	29.5	44.9	36.0	24.5	56.8	64.6	26.1	31.5
Doctoral Field														
Physical Sciences++	%	15.8	13.0	20.4	23.6	10.1	21.4	16.3	22.8	22.5	7.4	5.6	9.2	16.1
Engineering		13.9	9.0	17.7	27.7	6.9	28.2	20.9	20.0	32.3	6.0	5.2	6.7	9.4
Life Sciences		20.0	18.7	27.2	22.5	13.2	25.4	24.9	32.8	23.3	15.0	11.1	25.2	30.3
Social Sciences		16.6	18.8	11.1	10.6	22.2	9.8	14.7	8.2	8.8	18.8	18.9	20.2	18.5
Humanities		12.9	15.0	12.5	6.2	11.6	5.1	9.6	6.8	3.7	9.7	10.2	7.6	7.1
Education		15.4	19.6	6.3	4.9	26.5	5.2	8.7	5.0	4.4	37.0	42.2	22.7	16.5
Professional/Other		5.5	5.8	4.7	4.5	9.5	4.8	4.9	4.3	4.9	6.2	6.8	8.4	2.0
Median Age at Doct.	Yrs	33.7	34.3	34.2	32.3	36.1	32.7	30.7	34.2	32.4	38.4	39.2	38.4	37.1
Median Time Lapse From Bacc. to Doct.														
Total Time	Yrs	10.4	10.7	11.4	9.5	11.3	10.0	8.2	12.2	9.9	13.5	14.0	11.5	12.1
Registered Time		7.3	7.5	7.9	7.0	7.5	7.2	7.0	8.0	7.0	7.7	7.9	7.5	7.4
Doctoral Program Support**														
Teaching Assistantships	%	17.8	16.1	22.8	21.4	13.8	19.3	12.9	21.3	19.9	10.0	6.8	20.4	22.9
Res. Assistantships/Traineeships		26.5	20.5	37.7	42.1	15.6	45.9	32.2	47.1	49.0	12.2	8.7	23.3	25.1
Fellowships/Dissertation Grants		16.3	17.4	14.2	13.6	24.0	13.2	26.4	12.6	10.6	30.1	30.8	21.4	29.5
Own Resources		32.2	40.1	20.2	11.3	41.9	15.1	24.2	14.9	13.0	39.3	46.1	27.2	9.7
Foreign Government		2.5	0.1	2.1	9.7	0.6	4.6	0.3	1.7	6.0	1.6	0.0	1.9	10.1
Employer		3.1	4.0	1.7	1.1	3.0	1.1	2.0	1.7	0.8	4.8	5.7	3.9	0.0
Other	%	1.6	1.8	1.3	0.9	1.2	0.8	2.0	0.6	0.6	2.0	1.9	1.9	2.6
Postdoctoral Plans														
Postdoc study plans		24.4	22.0	31.6	36.0	17.5	35.0	33.1	34.7	36.2	18.2	15.1	26.9	31.1
Postdoc employment plans		63.3	70.5	61.4	57.5	72.0	58.2	59.8	59.8	57.7	70.6	74.3	62.2	60.6
Educ. Institution #	%	32.3	39.2	22.8	21.7	40.2	18.6	21.6	17.0	18.3	44.7	48.6	33.6	33.1
Industry/Business		17.7	15.8	27.0	25.9	12.7	29.8	23.5	32.3	31.1	10.0	9.5	17.6	9.8
Government		4.5	4.9	2.8	4.7	5.3	4.1	4.5	2.7	4.3	5.6	5.6	1.7	7.9
Nonprofit		3.0	3.8	2.9	1.4	2.6	1.7	2.8	2.8	1.2	3.8	3.9	2.5	3.9
Other/Unknown		5.7	6.7	5.9	3.9	11.1	4.0	7.4	4.9	2.9	6.6	6.7	6.7	5.9
Postdoc plans unknown	%	12.4	7.5	7.1	6.6	10.6	6.7	7.0	5.5	6.0	11.1	10.6	10.9	8.3
Definite Postdoc. Study	%	17.7	16.9	21.4	24.1	10.1	23.4	23.9	23.3	24.0	10.8	9.4	13.4	15.4
Seeking Postdoc. Study		6.6	5.0	10.1	11.9	7.4	11.7	9.2	11.3	12.2	7.5	5.7	13.4	15.7
Definite Employment		43.1	49.4	36.1	37.0	45.5	36.0	40.8	35.6	35.5	45.9	49.2	31.9	38.2
Seeking Employment		20.1	21.1	25.2	20.5	26.5	22.3	19.0	24.2	22.3	24.8	25.1	30.3	22.4
Employment Location														
After Doctorate+		18,409	13,935	974	3,196	86	3,085	477	552	1,911	873	722	38	97
U.S.	%	89.4	97.1	90.1	59.9	97.7	75.5	93.7	90.9	68.4	88.9	98.2	81.6	33.0
Foreign		9.9	2.2	8.9	39.4	2.3	23.7	4.4	8.2	31.0	10.0	0.8	13.2	66.0
Unknown	%	0.7	0.7	0.9	0.7	0.0	0.8	1.9	0.9	0.5	1.1	1.0	5.3	1.0

NOTE: Field groupings may differ from those in reports published by federal sponsors of the Survey of Earned Doctorates.

*Includes 174 individuals who did not report their gender and 3,127 individuals who did not report their citizenship at time of doctorate.

**In this table a recipient counts once in each source category from which he or she received support. This question and its response categories changed in 1998. Please refer to Appendix C technical notes for details. Since students indicate multiple sources of support, the vertical percentages sum to more than 100 percent. (Data on the "primary" source of support for doctorate recipients are presented in the Summary Report.)

#Includes 2-year, 4-year, and foreign colleges and universities, medical schools, and elementary/secondary schools.

+Includes only recipients with definite employment plans.

‡Includes Pacific Islander.

†Includes Alaskan Native.

++ Includes mathematics and computer sciences.

Source: NSF/NIH/NEH/USED/USDA, Survey of Earned Doctorates

APPENDIX TABLE A-4. Statistical profile of doctorate recipients, by race/ethnicity and citizenship, 1998, continued

White				Puerto Rican Total	Mexican American				Other Hispanic				Unknown Race			
Total*	U.S.	Non-U.S. Perm.	Non-U.S. Temp.		Total*	U.S.	Non-U.S. Perm.	Non-U.S. Temp.	Total*	U.S.	Non-U.S. Perm.	Non-U.S. Temp.	Total*	U.S.	Non-U.S. Perm.	Non-U.S. Temp.
26,760	23,338	815	2,239	299	468	406	15	39	1,099	485	106	451	3,390	866	89	271
54.9	53.0	56.3	73.1	41.8	54.9	51.7	60.0	82.1	61.2	55.9	58.5	69.2	57.9	58.7	66.3	73.8
45.1	47.0	43.7	26.8	58.2	45.1	48.3	40.0	17.9	38.6	43.9	41.5	30.6	37.7	39.8	24.7	25.8
14.9	13.5	19.4	28.6	8.4	9.0	8.6	0.0	15.4	11.4	8.7	8.5	15.5	16.4	14.8	21.3	26.6
10.1	8.7	16.2	21.6	5.7	7.9	6.9	13.3	12.8	14.2	11.3	7.5	19.3	13.9	9.5	19.1	18.5
18.9	19.1	18.0	17.0	17.7	22.4	18.0	40.0	59.0	23.9	17.7	23.6	31.0	16.5	15.6	16.9	25.5
18.0	18.6	14.8	12.8	27.1	19.9	21.4	13.3	7.7	21.1	25.8	16.0	16.0	17.9	21.0	9.0	10.0
15.4	15.7	19.6	11.0	12.7	13.0	13.5	33.3	2.6	15.4	13.2	36.8	12.0	13.6	16.2	21.3	6.6
17.0	18.6	6.9	4.7	23.7	24.8	28.1	0.0	2.6	10.6	19.0	4.7	3.5	15.1	17.0	5.6	7.4
5.7	5.9	5.0	4.2	4.7	3.0	3.4	0.0	0.0	3.5	4.3	2.8	2.7	6.5	6.0	6.7	5.5
33.8	34.2	33.8	31.6	36.5	35.1	34.6	36.3	37.3	34.8	35.0	36.2	34.3	34.0	34.7	33.5	32.5
10.3	10.7	10.0	8.2	13.2	10.1	10.0	9.8	11.0	10.3	10.5	11.3	9.9	10.3	10.7	11.3	8.9
7.3	7.5	7.2	6.6	8.5	7.3	7.3	8.9	6.0	7.2	7.8	8.0	6.8	7.3	7.5	7.5	7.0
18.0	17.0	24.5	25.1	9.3	12.6	12.2	28.6	11.4	18.7	13.8	33.3	19.7	18.9	16.2	19.2	22.0
22.2	21.1	25.5	32.7	13.3	12.4	13.2	14.3	5.7	17.9	12.9	17.2	23.4	24.5	20.8	28.8	31.5
15.6	15.4	15.8	17.6	29.4	27.3	28.9	21.4	14.3	22.0	27.0	16.2	18.0	19.2	21.2	15.4	19.0
37.4	40.6	27.8	8.4	40.7	36.6	40.6	21.4	5.7	24.5	39.4	28.3	9.5	26.5	36.3	25.0	5.0
1.4	0.1	2.7	13.7	0.0	8.4	2.3	7.1	62.9	12.0	0.7	3.0	24.8	6.2	0.4	1.9	19.0
3.7	4.0	1.4	1.5	4.0	1.6	1.5	7.1	0.0	3.0	3.9	0.0	2.9	2.5	3.4	3.8	1.0
1.7	1.8	2.2	1.1	3.2	1.1	1.3	0.0	0.0	1.9	2.3	2.0	1.7	2.2	1.8	5.8	2.5
23.6	22.2	28.5	37.8	14.4	23.7	22.7	40.0	28.2	25.6	22.5	26.4	29.7	7.6	14.4	16.9	31.0
69.8	71.8	66.3	57.2	67.2	71.4	72.2	53.3	69.2	63.5	67.0	64.2	61.4	18.1	44.1	40.4	43.5
38.3	40.1	30.1	25.9	39.1	47.0	48.0	26.7	38.5	35.8	37.1	44.3	33.0	8.3	20.1	16.9	21.8
16.6	16.3	22.6	19.5	10.0	9.0	9.1	13.3	7.7	12.2	12.4	8.5	13.7	4.6	10.7	11.2	12.5
4.8	4.9	2.6	4.4	6.0	6.4	5.2	6.7	20.5	6.6	6.2	4.7	7.3	1.5	3.3	4.5	4.4
3.7	4.0	3.4	1.4	3.3	3.0	3.4	0.0	0.0	3.2	4.3	0.9	2.7	0.6	1.5	2.2	0.7
6.5	6.5	7.6	6.0	8.7	6.0	6.4	6.7	2.6	5.8	7.0	5.7	4.7	3.1	8.4	5.6	4.1
6.5	5.9	5.3	5.0	18.4	4.9	5.2	6.7	2.6	10.9	10.5	9.4	8.9	74.3	41.5	42.7	25.5
18.2	17.4	20.0	27.2	11.4	17.7	17.0	26.7	23.1	16.8	16.1	18.9	18.2	5.3	10.6	14.6	19.2
5.4	4.8	8.5	10.7	3.0	6.0	5.7	13.3	5.1	8.7	6.4	7.5	11.5	2.3	3.8	2.2	11.8
49.0	50.8	39.3	39.1	45.8	50.2	49.8	53.3	56.4	44.9	47.6	34.0	45.5	11.1	25.9	22.5	31.7
20.8	21.0	27.0	18.1	21.4	21.2	22.4	0.0	12.8	18.7	19.4	30.2	16.0	7.0	18.2	18.0	11.8
13,124	11,856	320	875	137	235	202	8	22	493	231	36	205	376	224	20	86
93.8	97.3	90.0	53.4	97.8	86.4	95.5	100.0	9.1	65.7	91.8	88.9	36.1	77.1	93.8	85.0	38.4
5.5	2.0	9.4	45.6	2.2	13.2	4.0	0.0	90.9	33.5	6.9	11.1	63.4	20.2	3.1	15.0	61.6
0.7	0.6	0.6	1.0	0.0	0.4	0.5	0.0	0.0	0.8	1.3	0.0	0.5	2.7	3.1	0.0	0.0

APPENDIX TABLE A-5. Doctorate recipients' financial resources in support of doctoral programs, by broad field and sex, 1998

Financial Resource	Total #		Physical Sciences*		Engineering		Life Sciences		Social Sciences		Humanities		Education		Prof/Other Fields		
	Men	Women	Men	Women	Men	Women	Men	Women	Men	Women	Men	Women	Men	Women	Men	Women	
Loans (from any source)	N	5,292	4,653	719	234	616	74	879	713	1,053	1,400	1,022	913	663	1,033	340	286
	V	25.1%	30.7%	15.8%	16.5%	14.2%	11.2%	22.7%	21.5%	38.4%	44.1%	40.7%	37.8%	33.7%	31.2%	30.2%	34.0%
	H	100.0%	100.0%	13.6%	5.0%	11.6%	1.6%	16.6%	15.3%	19.9%	30.1%	19.3%	19.6%	12.5%	22.2%	6.4%	6.1%
Foreign (non-U.S.) Support	N	2,012	763	341	69	593	68	362	182	271	143	224	182	94	86	127	33
	V	9.5%	5.0%	7.5%	4.9%	13.7%	10.3%	9.4%	5.5%	9.9%	4.5%	8.9%	7.5%	4.8%	2.6%	11.3%	3.9%
	H	100.0%	100.0%	16.9%	9.0%	29.5%	8.9%	18.0%	23.9%	13.5%	18.7%	11.1%	23.9%	4.7%	11.3%	6.3%	4.3%
Fellowship, Scholarship	N	8,668	6,504	1,812	605	1,494	296	1,785	1,645	1,260	1,412	1,422	1,344	442	847	453	355
	V	41.1%	43.0%	39.9%	42.6%	34.5%	44.8%	46.1%	49.7%	45.9%	44.4%	56.7%	55.7%	22.5%	25.6%	40.3%	42.2%
	H	100.0%	100.0%	20.9%	9.3%	17.2%	4.6%	20.6%	25.3%	14.5%	21.7%	16.4%	20.7%	5.1%	13.0%	5.2%	5.5%
Dissertation Grant	N	1,952	2,096	217	74	117	37	320	401	468	612	610	582	95	253	125	137
	V	9.3%	13.8%	4.8%	5.2%	2.7%	5.6%	8.3%	12.1%	17.1%	19.3%	24.3%	24.1%	4.8%	7.6%	11.1%	16.3%
	H	100.0%	100.0%	11.1%	3.5%	6.0%	1.8%	16.4%	19.1%	24.0%	29.2%	31.3%	27.8%	4.9%	12.1%	6.4%	6.5%
Teaching Assistant	N	13,226	8,861	3,676	1,155	2,345	392	1,819	1,635	2,047	2,172	2,041	1,992	554	971	744	544
	V	62.7%	58.5%	81.0%	81.3%	54.1%	59.4%	47.0%	49.4%	74.6%	68.4%	81.3%	82.5%	28.2%	29.3%	66.1%	64.6%
	H	100.0%	100.0%	27.8%	13.0%	17.7%	4.4%	13.8%	18.5%	15.5%	24.5%	15.4%	22.5%	4.2%	11.0%	5.6%	6.1%
Research Assistant	N	9,935	5,685	2,766	839	2,772	409	2,023	1,629	1,103	1,347	535	557	322	587	414	317
	V	47.1%	37.6%	60.9%	59.1%	64.0%	62.0%	52.3%	49.2%	40.2%	42.4%	21.3%	23.1%	29.9%	0.0%	28.2%	37.6%
	H	100.0%	100.0%	27.8%	14.8%	27.9%	7.2%	20.4%	28.7%	11.1%	23.7%	5.4%	9.8%	5.9%	0.0%	3.2%	5.6%
Traineeship	N	863	1,010	85	48	74	22	510	576	149	293	21	23	13	35	11	13
	V	4.1%	6.7%	1.9%	3.4%	1.7%	3.3%	13.2%	17.4%	5.4%	9.2%	0.8%	1.0%	0.7%	1.1%	1.0%	1.5%
	H	100.0%	100.0%	9.8%	4.8%	8.6%	2.2%	59.1%	57.0%	17.3%	29.0%	2.4%	2.3%	1.5%	3.5%	1.3%	1.3%
Internship or Residency	N	958	1,134	156	39	239	22	78	52	348	805	44	50	65	143	28	23
	V	4.5%	7.5%	3.4%	2.7%	5.5%	3.3%	2.0%	1.6%	12.7%	25.3%	1.8%	2.1%	3.3%	4.3%	2.5%	2.7%
	H	100.0%	100.0%	16.3%	3.4%	24.9%	1.9%	8.1%	4.6%	36.3%	71.0%	4.6%	4.4%	6.8%	12.6%	2.9%	2.0%
Personal Savings	N	8,540	6,978	1,402	427	1,513	208	1,433	1,327	1,225	1,530	1,216	1,057	1,194	1,981	557	448
	V	40.5%	46.1%	30.9%	30.1%	34.9%	31.5%	37.0%	40.1%	44.7%	48.2%	48.4%	43.8%	60.8%	59.8%	49.4%	53.2%
	H	100.0%	100.0%	16.4%	6.1%	17.7%	3.0%	16.8%	19.0%	14.3%	21.9%	14.2%	15.1%	14.0%	28.4%	6.5%	6.4%
Other Personal Earnings During Graduate School	N	6,844	6,447	917	261	907	116	860	894	1,187	1,568	1,376	1,293	1,091	1,879	506	436
	V	32.5%	42.6%	20.2%	18.4%	20.9%	17.6%	22.2%	27.0%	43.3%	49.4%	54.8%	53.6%	55.5%	56.7%	45.0%	51.8%
	H	100.0%	100.0%	13.4%	4.0%	13.3%	1.8%	12.6%	13.9%	17.3%	24.3%	20.1%	20.1%	15.9%	29.1%	7.4%	6.8%
Family Earnings or Savings‡	N	7,328	6,807	1,179	415	1,148	200	1,338	1,322	1,183	1,628	1,195	1,202	835	1,641	450	399
	V	34.8%	45.0%	26.0%	29.2%	26.5%	30.3%	34.6%	39.9%	43.1%	51.2%	47.6%	49.8%	42.5%	49.5%	40.0%	47.4%
	H	100.0%	100.0%	16.1%	6.1%	15.7%	2.9%	18.3%	19.4%	16.1%	23.9%	16.3%	17.7%	11.4%	24.1%	6.1%	5.9%
Employer Reimbursement/ Assistance	N	2,584	2,099	317	100	605	62	301	367	306	342	262	220	589	880	204	128
	V	12.3%	13.9%	7.0%	7.0%	14.0%	9.4%	7.8%	11.1%	11.2%	10.8%	10.4%	9.1%	30.0%	26.6%	18.1%	15.2%
	H	100.0%	100.0%	12.3%	4.8%	23.4%	3.0%	11.6%	17.5%	11.8%	16.3%	10.1%	10.5%	22.8%	41.9%	7.9%	6.1%
Other	N	648	650	78	35	88	11	95	118	100	132	98	108	138	212	51	34
	V	3.1%	4.3%	1.7%	2.5%	2.0%	1.7%	2.5%	3.6%	3.6%	4.2%	3.9%	4.5%	7.0%	6.4%	4.5%	4.0%
	H	100.0%	100.0%	12.0%	5.4%	13.6%	1.7%	14.7%	18.2%	15.4%	20.3%	15.1%	16.6%	21.3%	32.6%	7.9%	5.2%
Unduplicated Total***	N	21,086	15,138	4,539	1,420	4,333	660	3,870	3,312	2,743	3,177	2,510	2,414	1,965	3,313	1,126	842

NOTE: In this table a recipient counts once in each source category from which he or she received support. Since students indicate multiple sources of support, the vertical percentages sum to more than 100 percent. (Data on the "primary" source of support for doctorate recipients are presented in the body of the Summary Report.) Field groupings may differ from those in reports published by federal sponsors of the Survey of Earned Doctorates. Furthermore, because the form of this question and its response categories changed in 1998, the ability to make trend comparison with previous cycles appears to be broken (except for teaching assistantships, research assistantships, and Foreign Support); see Appendix C: Technical Notes for details.

*V denotes vertical percentage; H denotes horizontal percentage.

†Includes mathematics and computer sciences.

**Excludes 174 individuals for whom gender was not reported.

***The 6,429 Ph.D.s who did not report sources of support are omitted from this total. Percentages are based only on known responses.

‡This category includes spouses and significant others.

Source: NSF/NIH/NEH/USED/USDA, Survey of Earned Doctorates

APPENDIX TABLE A-6. State of doctoral institution of doctorate recipients, by broad field and gender, 1998

State	Total**		Physical Sciences*		Engineering		Life Sciences		Social Sciences		Humanities		Education		Prof./Other Fields	
	Men	Women	Men	Women	Men	Women	Men	Women	Men	Women	Men	Women	Men	Women	Men	Women
U.S. Total★	24,653	17,856	5,104	1,600	5,108	769	4,640	3,876	3,206	3,838	2,814	2,675	2,422	4,120	1,359	978
Alabama	337	237	62	17	78	8	87	67	25	39	9	12	54	80	22	14
Alaska	25	9	10	2	4	0	9	7	0	0	1	0	1	0	0	0
Arizona	468	290	103	36	91	9	73	50	59	63	63	44	54	71	25	17
Arkansas	106	63	13	1	10	1	35	17	2	5	10	3	29	32	7	4
California	2,769	1,933	663	192	630	101	466	384	424	564	320	306	154	301	112	85
Colorado	453	307	128	33	102	21	78	71	47	59	37	30	40	72	21	21
Connecticut	371	264	78	27	48	3	79	77	63	66	76	61	15	21	12	9
Delaware	102	71	28	7	26	5	9	7	13	14	7	7	18	30	1	1
Dist. of Columbia	254	248	43	16	32	7	29	37	51	72	56	52	22	41	21	23
Florida	1,019	915	178	68	169	16	132	94	137	217	74	57	227	396	102	67
Georgia	571	418	82	32	153	24	121	84	60	80	44	61	73	120	38	17
Hawaii	101	58	30	8	6	1	26	21	21	15	16	9	2	3	0	1
Idaho	63	27	13	4	7	2	18	6	1	0	2	1	19	14	3	0
Illinois	1,339	914	288	82	296	52	191	186	208	218	184	148	114	186	58	42
Indiana	648	433	140	46	149	21	107	92	64	80	102	92	54	82	32	20
Iowa	417	231	83	28	87	17	102	54	50	36	31	28	52	56	12	12
Kansas	281	204	41	22	41	9	73	32	40	41	34	33	43	56	9	11
Kentucky	207	135	34	10	27	2	54	36	18	25	39	24	19	30	16	8
Louisiana	326	229	67	13	43	6	78	73	41	34	37	26	56	19	10	0
Maine	21	29	2	4	3	2	7	9	2	5	3	1	3	8	1	0
Maryland	560	441	125	42	122	22	134	149	79	85	57	63	20	57	23	23
Massachusetts	1,311	849	305	85	311	60	226	219	188	182	145	139	67	109	69	55
Michigan	869	634	170	71	237	36	147	146	112	147	80	82	76	123	47	29
Minnesota	493	340	81	23	90	7	113	83	44	55	59	42	62	104	44	26
Mississippi	211	138	28	13	22	3	44	16	27	12	11	8	48	76	31	10
Missouri	463	315	80	23	102	7	88	73	56	62	38	48	62	83	37	19
Montana	61	36	16	2	3	1	22	14	6	4	0	0	13	15	1	0
Nebraska	165	149	24	12	12	2	57	42	21	28	14	14	21	39	16	12
Nevada	52	34	19	7	8	1	7	7	11	9	2	4	3	6	2	0
New Hampshire	71	48	28	11	8	2	24	14	3	7	4	8	4	6	0	0
New Jersey	498	330	122	37	119	20	67	68	62	65	96	90	13	33	19	17
New Mexico	190	115	48	10	48	7	30	16	18	21	14	15	23	40	9	6
New York	2,013	1,752	423	136	325	48	375	330	320	442	313	406	160	290	97	100
North Carolina	618	465	137	56	119	24	149	149	81	79	68	52	46	85	18	20
North Dakota	48	37	9	3	4	0	27	5	3	9	1	3	4	17	0	0
Ohio	1,082	778	217	55	275	30	182	175	101	152	113	109	128	213	66	44
Oklahoma	241	160	32	14	47	10	50	18	23	27	31	20	40	55	18	16
Oregon	246	180	50	21	30	7	88	61	28	20	24	22	41	41	8	6
Pennsylvania	1,288	933	216	71	346	55	178	174	164	187	146	156	146	222	92	68
Puerto Rico	22	81	1	4	1	0	5	1	7	49	2	3	6	24	0	0
Rhode Island	139	110	59	30	14	3	11	16	21	26	31	33	0	0	3	2
South Carolina	202	167	46	8	32	5	52	49	20	22	19	22	23	46	10	15
South Dakota	33	37	1	1	2	0	4	4	4	8	0	0	22	24	0	0
Tennessee	362	280	38	19	55	8	72	63	49	50	51	30	65	91	32	19
Texas	1,644	1,091	327	67	369	37	304	258	199	193	174	152	156	317	115	67
Utah	235	114	53	10	56	8	48	26	41	30	11	6	16	26	10	8
Vermont	27	35	2	2	7	2	13	7	4	11	0	3	1	10	0	0
Virginia	548	434	111	43	131	19	105	86	57	77	37	32	76	161	31	16
Washington	390	303	92	30	71	15	88	80	41	53	44	43	37	63	17	19
West Virginia	94	57	14	1	24	1	30	17	9	13	4	1	13	24	0	0
Wisconsin	557	377	122	38	113	22	118	101	76	76	69	61	26	60	33	19
Wyoming	42	21	22	7	3	0	8	5	4	0	0	4	5	0	0	0

NOTE: Field groupings may differ from those in reports published by federal sponsors of the Survey of Earned Doctorates.

**Excludes 174 individuals for whom gender was not reported. *Includes mathematics and computer sciences.

★Includes the 50 states, District of Columbia, and Puerto Rico.

SOURCE: NSF/NIH/NEH/USED/USDA, Survey of Earned Doctorates

APPENDIX TABLE A-7. Institutions granting research doctorates, by major field, 1998

State/Institution	1998 Total	Physics and Astronomy	Chemistry	Earth, Atmos., and Marine Sciences	Math and Computer Sciences	Engineering	Biosciences	Health Sciences	Agricultural Sci.	Psychology	Other Social Sciences	History	Eng. and Amer. Language and Lit.	Other Humanities	Education	Professional/Other/Unknown Fields*
TOTAL ALL INSTITUTIONS	42,683	1,584	2,217	838	2,100	5,919	5,848	1,500	1,192	3,676	3,399	988	1,076	3,435	6,559	2,352
ALABAMA	574	29	19	6	25	86	79	45	30	48	16	7	9	5	134	12
Alabama A&M University	10	6	0	0	0	1	1	0	2	0	0	0	0	0	0	0
Auburn University	192	7	13	1	11	36	10	6	28	22	9	2	3	0	37	7
United States Sports Academy	19	0	0	0	0	0	0	0	0	0	0	0	0	0	19	0
Univ of Alabama-Birmingham	141	4	2	0	5	9	50	33	0	16	2	0	0	0	20	0
Univ of Alabama-Huntsville	41	7	1	4	6	23	0	0	0	0	0	0	0	0	0	0
Univ of Alabama	150	5	3	0	3	17	8	2	0	10	5	5	6	5	52	29
Univ of South Alabama	21	0	0	1	0	0	10	4	0	0	0	0	0	0	6	0
ALASKA	34	5	0	7	0	4	13	0	3	0	0	0	0	1	1	0
Univ of Alaska	34	5	0	7	0	4	13	0	3	0	0	0	0	1	1	0
ARIZONA	759	46	26	37	30	100	76	17	31	57	65	20	18	69	125	42
Arizona State Univ	292	10	7	7	16	59	20	6	0	32	21	8	9	22	48	27
Northern Arizona Univ	56	0	0	0	0	0	3	0	2	0	6	3	1	1	40	0
Univ of Arizona	411	36	19	30	14	41	53	11	29	25	38	9	8	46	37	15
ARKANSAS	169	5	6	2	1	11	25	7	20	7	0	8	1	4	61	11
Arkansas State Univ	2	0	0	0	0	0	0	0	0	0	0	0	0	2	0	0
U of Arkansas-Fayetteville	122	4	6	0	1	11	11	7	20	7	0	8	1	4	31	11
U of Arkansas-Little Rock	31	1	0	2	0	0	0	0	0	0	0	0	0	0	28	0
U of Arkansas-Med Sci Campus	14	0	0	0	0	0	14	0	0	0	0	0	0	0	0	0
CALIFORNIA	4,731	212	283	119	250	736	665	125	64	564	433	142	124	360	457	197
Azusa Pacific University	4	0	0	0	0	0	0	0	0	0	0	0	0	3	1	1
Biola University	16	0	0	0	0	0	0	0	0	14	0	0	0	0	2	0
California Inst of Technology	191	48	30	17	21	45	24	0	0	1	4	0	0	0	1	0
Calif Sch Prof Psych-Alameda	63	0	0	0	0	0	0	0	0	62	0	0	0	0	0	1
Calif. Sch Prof Psych-Fresno	37	0	0	0	0	0	0	0	0	37	0	0	0	0	0	0
Calif Sch Prof Psych-LA	77	0	0	0	0	0	0	0	0	75	0	0	0	0	1	1
Calif Sch Prof Psych-San Diego	79	0	0	0	0	1	0	0	0	76	0	0	0	1	1	0
Claremont Graduate School	95	0	0	0	3	2	0	0	0	14	28	2	7	14	15	10
Fielding Institute	38	0	0	0	0	0	0	0	0	23	2	0	0	0	2	11
Fuller Theological Seminary	31	0	0	0	1	0	0	0	0	22	0	0	0	3	0	5
Graduate Theological Union	22	0	0	0	0	0	0	0	0	0	0	0	0	11	1	10
La Sierra Univ	4	0	0	0	0	0	0	0	0	0	0	0	0	0	1	3
Loma Linda Univ	12	0	0	0	0	0	8	4	0	0	0	0	0	0	0	0
Naval Postgraduate School	10	1	0	1	2	6	0	0	0	0	0	0	0	0	0	0
Pacific Grad School of Psychology	27	0	0	0	0	0	0	0	0	27	0	0	0	0	0	0
Pepperdine Univ	33	0	0	0	0	0	0	0	0	0	1	0	0	0	32	0
Rand Grad Sch of Policy Studies	4	0	0	0	0	0	0	0	0	0	4	0	0	0	0	0
Scripps Institute	22	0	9	0	0	0	13	0	0	0	0	0	0	0	0	0
San Diego State Univ	32	0	0	0	0	1	7	5	0	11	1	0	0	0	7	0
School of Theology at Claremont	2	0	0	0	0	0	0	0	0	1	0	0	0	0	1	0
Stanford University	595	22	40	28	48	177	75	0	2	13	52	16	16	54	28	24
U.S. International Univ	39	0	0	0	0	0	0	0	0	23	1	0	0	1	4	10
Univ of California-Berkeley	748	37	54	10	55	153	92	28	21	18	87	35	29	74	20	35
Univ of California-Davis	337	11	24	5	9	42	129	10	36	8	23	8	7	8	17	0
Univ of California-Irvine	196	11	28	1	12	36	39	2	0	7	20	8	10	17	1	4
Univ of California-Los Angeles	605	23	30	18	35	75	66	30	0	19	80	40	14	76	64	35
Univ of California-Riverside	122	4	7	3	10	0	27	1	3	7	22	8	7	10	12	1
Univ of California-San Diego	268	12	24	15	19	50	62	5	2	23	28	6	4	11	2	5
Univ of California-San Francisco	91	1	8	0	0	3	48	21	0	2	6	1	0	0	0	1
Univ of California-Santa Barbara	263	20	11	6	18	61	19	1	0	18	27	9	15	34	20	4
Univ of California-Santa Cruz	87	15	7	6	3	7	20	0	0	2	10	3	7	5	2	0
Univ of La Verne	41	0	0	0	0	0	0	0	0	1	0	0	0	0	40	0
Univ of the Pacific	10	0	0	0	0	0	1	0	0	0	0	0	0	9	0	0
Univ of San Diego	22	0	0	0	0	0	0	6	0	0	1	0	0	0	14	1
Univ of San Francisco	58	0	0	0	0	0	0	0	0	3	1	0	0	0	53	1
Univ of Santa Clara	2	0	0	0	0	2	0	0	0	0	0	0	0	0	0	0
Univ of Southern California	403	7	11	9	14	75	35	12	0	12	35	6	8	41	104	34
Wright Institute, The	45	0	0	0	0	0	0	0	0	45	0	0	0	0	0	0
COLORADO	764	31	44	54	33	126	93	23	33	49	57	8	15	44	112	42
Colorado School of Mines	37	0	3	13	1	17	0	0	0	0	3	0	0	0	0	0
Colorado State Univ	212	4	20	15	7	35	41	9	33	16	8	0	0	0	21	3
Univ of Colorado	375	26	18	25	21	73	52	13	0	11	36	7	9	29	21	34
Univ of Denver	74	1	2	1	3	1	0	0	0	14	9	1	6	4	27	5
Univ of Northern Colorado	66	0	1	0	1	0	0	1	0	8	1	0	0	11	43	0

NOTE: Field groupings may differ from those in reports published by Federal sponsors of the Survey of Earned Doctorates.

*Includes 20 respondents for whom doctoral field is unknown.

Source: NSF/NIH/NEH/USED/USDA, Survey of Earned Doctorates

APPENDIX TABLE A-7. Institutions granting research doctorates, by major field, 1998

State/Institution	1998 Total	Physics and Astronomy	Chemistry	Earth, Atmos., and Marine Sciences	Math and Computer Sciences	Engineering	Biosciences	Health Sciences	Agricultural Sci.	Psychology	Other Social Sciences	History	Eng. and Amer. Language and Lit.	Other Humanities	Education	Professional/Other Unknown Fields*
CONNECTICUT	638	28	37	10	31	53	129	20	7	44	85	34	13	90	36	21
Univ of Connecticut	254	8	14	4	16	34	50	10	3	22	29	5	4	11	35	9
Univ of New Haven	3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	3
Wesleyan Univ	19	3	5	0	3	0	6	0	0	0	0	0	0	2	0	0
Yale Univ	362	17	18	6	12	19	73	10	4	22	56	29	9	77	1	9
DELAWARE	173	5	13	10	7	31	14	1	1	9	18	2	3	9	48	2
Univ of Delaware	144	5	13	10	7	31	14	1	1	9	18	2	3	9	19	2
Wilmington College	29	0	0	0	0	0	0	0	0	0	0	0	0	0	29	0
DISTRICT OF COLUMBIA	504	15	21	2	21	39	52	13	1	53	70	25	8	75	64	45
American Univ	62	4	3	0	1	0	2	0	0	8	27	6	0	0	9	2
Catholic Univ of America	109	5	6	0	0	9	6	8	0	12	4	4	1	33	4	17
Gallaudet Univ	5	0	0	0	0	0	0	0	0	2	0	0	0	0	3	0
George Washington Univ	176	5	3	2	18	27	15	0	0	14	15	2	5	10	44	16
Georgetown Univ	80	0	3	0	0	0	16	0	0	5	13	11	0	32	0	0
Howard Univ	72	1	6	0	2	3	13	5	1	12	11	2	2	0	4	10
FLORIDA	1,945	40	84	28	95	185	128	42	57	275	85	19	29	83	624	171
Barry Univ	10	0	0	0	0	0	0	0	0	0	0	0	0	0	5	5
Caribbean Ctr Adv Stud-Miami	34	0	0	0	0	0	0	0	0	31	0	0	0	3	0	0
Florida A&M Univ	2	0	0	0	0	1	1	0	0	0	0	0	0	0	0	0
Florida Atlantic Univ	49	2	0	0	0	14	1	0	0	2	1	0	0	1	21	7
Florida Inst of Technology	20	1	1	0	6	8	2	0	0	0	0	0	0	0	2	0
Florida International Univ	71	0	0	0	2	4	3	0	0	5	11	0	0	0	32	14
Florida State Univ	306	16	19	5	14	9	19	2	0	25	23	10	7	40	74	43
Nova Southeastern Univ	543	0	0	1	35	0	0	1	0	149	0	0	0	1	298	58
Univ of Central Florida	69	7	0	1	6	22	0	0	0	4	0	0	0	0	26	3
Univ of Florida	457	11	59	4	16	97	59	25	57	28	32	8	6	11	24	20
Univ of Miami	144	3	1	10	2	14	30	5	0	20	14	1	5	21	16	2
Univ of Sarasota	87	0	0	0	3	0	0	0	0	0	1	0	0	0	76	7
Univ of South Florida	153	0	4	7	11	16	13	9	0	11	3	0	11	6	50	12
GEORGIA	992	17	45	10	42	178	133	30	42	88	54	12	30	63	193	55
Clark Atlanta Univ	51	0	0	0	0	0	1	0	0	3	7	0	0	8	30	2
Emory University	135	3	16	0	5	1	32	5	0	1	14	7	16	31	3	1
Georgia Inst of Technology	262	10	15	8	28	175	9	0	0	10	0	0	0	0	0	7
Georgia Southern Univ	8	0	0	0	0	0	0	0	0	0	0	0	0	0	8	0
Georgia State Univ	137	2	1	0	1	0	5	9	0	26	9	2	4	1	57	20
Institute of Paper Sci & Tech	6	0	0	0	0	1	0	0	5	0	0	0	0	0	0	0
Medical College of Georgia	22	0	0	0	0	0	19	3	0	0	0	0	0	0	0	0
Mercer Univ-Southern Schl of Phar	2	0	0	0	0	0	0	2	0	0	0	0	0	0	0	0
Univ of Georgia	369	2	13	2	8	1	67	11	37	48	24	3	10	23	95	25
HAWAII	159	11	9	12	6	7	31	5	11	7	29	7	5	13	5	1
Univ of Hawaii at Manoa	159	11	9	12	6	7	31	5	11	7	29	7	5	13	5	1
IDAHO	90	0	10	2	5	9	14	0	10	0	1	0	1	2	33	3
Idaho State Univ	19	0	0	0	2	3	5	0	0	0	1	0	1	2	5	0
Univ of Idaho	71	0	10	2	3	6	9	0	10	0	0	0	0	0	28	3
ILLINOIS	2,260	95	117	24	134	352	263	74	42	176	250	57	77	199	300	100
Depaul Univ	16	0	0	0	2	0	0	0	0	11	0	0	0	3	0	0
Finch U of Hlth Sci-Chicago Med	18	0	0	0	0	0	8	1	0	9	0	0	0	0	0	0
Illinois Inst of Technology	75	2	3	0	14	32	6	0	0	16	0	0	0	0	0	2
Illinois State Univ-Normal	51	0	0	0	2	0	3	0	0	1	1	1	8	4	31	0
Inst for Clinical Social Work	8	0	0	0	0	0	0	0	0	1	0	0	0	0	0	7
Loyola Univ of Chicago	128	0	2	0	1	0	23	8	0	26	7	1	10	7	36	7
Lutheran School of Theol-Chicago	2	0	0	0	0	0	0	0	0	0	0	0	0	2	0	0
Northern Illinois Univ	116	0	5	0	2	0	2	0	0	12	12	0	7	1	75	0
Northwestern Univ	371	14	19	4	25	94	44	4	0	32	50	6	6	40	11	22
Roosevelt Univ	13	0	0	0	0	0	0	0	0	0	0	0	0	0	13	0
Rush Univ	26	1	0	0	0	0	3	21	0	0	1	0	0	0	0	0
Southern Ill Univ-Carbondale	138	2	5	0	4	6	10	7	2	15	13	4	11	17	31	11
Southern Ill Univ-Edwardsville	4	0	0	0	0	0	0	0	0	0	0	0	0	4	0	0
Univ of Chicago	368	28	17	8	25	0	51	1	0	10	95	29	18	66	7	13
Univ of Illinois-Chicago	220	8	20	3	15	45	42	26	0	6	16	4	5	4	16	10
Univ of Illinois-Urbana/Champaign	706	40	46	9	44	175	71	6	40	37	55	12	12	55	76	28
INDIANA	1,084	26	96	11	53	170	119	35	46	67	77	21	49	124	137	53
Ball State Univ	49	0	0	0	0	0	0	2	0	12	0	0	4	11	20	0
Indiana State Univ	27	0	0	0	0	0	3	0	0	12	3	0	0	0	9	0
Indiana Univ-Bloomington	380	9	24	4	22	0	44	7	0	19	40	11	16	80	72	32
Indiana Univ-Purdue-Indianapolis	15	0	0	0	0	0	1	14	0	0	0	0	0	0	0	0

NOTE: Field groupings may differ from those in reports published by Federal sponsors of the Survey of Earned Doctorates.

*Includes 20 respondents for whom doctoral field is unknown.

Source: NSF/NIH/NEH/USED/USDA, Survey of Earned Doctorates

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State/Institution	1998 Total	Physics and Astronomy	Chemistry	Earth, Atmos., and Marine Sciences	Math and Computer Sciences	Engineering	Biosciences	Health Sciences	Agricultural Sci.	Psychology	Other Social Sciences	History	Eng. and Amer. Language and Lit.	Other Humanities	Education	Professional/Other Unknown Fields*
INDIANA (continued)																
Purdue Univ	496	11	66	7	24	139	53	12	46	19	19	4	22	20	35	19
Univ of Notre Dame	117	6	6	0	7	31	18	0	0	5	15	6	7	13	1	2
IOWA	649	19	51	7	35	104	79	40	37	38	48	13	8	38	108	24
Drake Univ	6	0	0	0	0	0	0	0	0	0	0	0	0	0	6	0
Iowa State Univ	300	15	30	2	17	66	40	2	37	22	23	5	0	3	32	6
Maharishi International Univ	5	0	0	0	0	0	3	0	0	1	0	0	0	1	0	0
Univ of Iowa	327	4	21	5	18	36	36	38	0	15	25	8	8	34	61	18
Univ of Northern Iowa	11	0	0	0	0	2	0	0	0	0	0	0	0	0	9	0
KANSAS	485	9	35	5	14	50	62	13	30	48	33	16	16	35	99	20
Kansas State Univ	161	4	6	1	9	23	27	1	30	12	11	1	1	0	34	1
Univ of Kansas	287	5	25	4	0	15	35	10	0	31	22	15	15	35	56	19
Wichita State Univ	37	0	4	0	5	12	0	2	0	5	0	0	0	0	9	0
KENTUCKY	342	7	18	2	17	29	69	7	14	29	14	14	8	41	49	24
Southern Bapt Theol Seminary	30	0	0	0	0	0	0	0	0	0	0	1	0	18	1	10
Spalding Univ	10	0	0	0	0	0	0	0	0	0	1	0	0	0	9	0
Univ of Kentucky	227	7	9	2	16	21	49	6	14	18	11	13	7	18	23	13
Univ of Louisville	75	0	9	0	1	8	20	1	0	11	2	0	1	5	16	1
LOUISIANA	555	10	28	8	34	49	96	35	20	36	39	15	25	49	82	29
Grambling State Univ	10	0	0	0	0	0	0	0	0	0	0	0	0	0	10	0
Louisiana St U and A&M Col-Baton Rouge	258	8	14	8	11	33	39	6	20	22	16	6	12	21	33	9
Louisiana St U Med Schl-New Orleans	23	0	0	0	0	0	18	5	0	0	0	0	0	0	0	0
Louisiana St U Med Schl-Shreveport	2	0	0	0	0	0	2	0	0	0	0	0	0	0	0	0
Louisiana Tech Univ	9	0	0	0	0	3	0	0	0	0	0	0	0	0	4	2
New Orleans Bapt Theol Seminary	25	0	0	0	0	0	0	0	0	0	0	1	0	13	1	10
Northeast Louisiana Univ	11	0	1	0	0	0	3	5	0	0	0	0	0	0	2	0
Tulane Univ of Louisiana	126	2	7	0	12	9	28	19	0	6	12	8	8	11	0	4
Univ of New Orleans	61	0	6	0	0	0	0	0	0	8	11	0	0	0	32	4
Univ of Southwestern Louisiana	30	0	0	0	11	4	6	0	0	0	0	0	5	4	0	0
MAINE	50	0	2	4	0	5	10	0	6	7	0	3	0	1	11	1
Univ of Maine	50	0	2	4	0	5	10	0	6	7	0	3	0	1	11	1
MARYLAND	1,002	55	38	17	57	144	164	106	13	71	93	21	13	86	77	47
Johns Hopkins Univ	363	20	13	9	9	43	84	77	0	14	50	13	3	18	9	1
Loyola College in Maryland	4	0	0	0	0	0	0	0	0	4	0	0	0	0	0	0
Morgan State Univ	4	0	0	0	0	0	0	0	0	0	0	0	0	0	4	0
Peabody Inst of Johns Hopkins	22	0	0	0	0	0	0	0	0	0	0	0	0	0	21	0
Uniformed Serv U of Hlth Sci	10	0	0	0	0	0	6	0	0	4	0	0	0	0	0	0
Univ of Maryland-Baltimore County	55	0	4	0	12	19	4	0	0	6	6	0	0	3	0	1
Univ of Maryland-College Park	476	35	18	8	36	82	34	10	12	42	37	8	10	44	64	36
University of Maryland-Eastern Shore	2	0	0	0	0	0	1	0	1	0	0	0	0	0	0	0
Univ of Maryland-Baltimore Prof Schs	66	0	3	0	0	0	35	19	0	1	0	0	0	0	0	8
MASSACHUSETTS	2,174	128	119	33	112	377	355	83	9	101	270	51	37	196	176	127
American Internatl College	6	0	0	0	0	0	0	0	0	0	0	0	0	0	6	0
Boston College	100	5	2	0	0	0	0	13	8	0	6	10	4	2	15	20
Boston Univ	278	15	8	4	8	14	59	12	0	24	29	1	1	52	32	19
Brandeis Univ	90	3	5	0	9	1	21	2	0	2	27	6	7	5	1	1
Clark Univ	31	1	2	0	0	1	2	0	0	8	12	0	0	2	2	1
Harvard Univ	560	38	33	7	23	12	107	45	0	14	87	33	10	85	42	24
Mass Coll Pharm & Health Sci	2	0	0	0	0	0	2	0	0	0	0	0	0	0	0	0
Mass Inst of Technology	492	40	29	19	41	229	52	0	0	2	48	1	0	2	2	27
New England Conserv of Music	4	0	0	0	0	0	0	0	0	0	0	0	0	3	1	0
Northeastern Univ	87	6	9	0	5	23	8	2	0	10	22	0	0	0	1	1
Simmons College	8	0	0	0	0	0	0	0	0	0	0	0	0	0	0	8
Smith College	11	0	0	0	0	0	0	0	0	0	0	0	0	1	0	10
Springfield College	7	0	0	0	0	0	0	0	0	0	0	0	0	0	7	0
Tufts Univ	81	3	3	1	2	7	33	3	0	6	11	1	7	2	1	1
Univ of Massachusetts-Amherst	298	13	23	2	16	54	24	9	9	21	18	5	10	29	45	20
Univ of Massachusetts-Boston	15	0	0	0	0	0	0	0	0	8	5	0	0	0	2	0
Univ of Massachusetts-Lowell	51	2	5	0	8	13	6	2	0	0	1	0	0	0	14	0
Univ of Massachussets-Worcester	26	0	0	0	0	0	26	0	0	0	0	0	0	0	0	0
Worcester Polytechnic Inst	27	2	0	0	0	23	2	0	0	0	0	0	0	0	0	0
MICHIGAN	1,509	60	90	18	75	275	171	66	56	122	139	27	30	105	199	76
Andrews Univ	19	0	0	0	0	0	0	0	0	3	0	0	0	3	12	1
Central Michigan Univ	4	0	0	0	0	0	0	0	0	4	0	0	0	0	0	0
Eastern Michigan Univ	5	0	0	0	0	0	0	0	0	0	0	0	0	0	5	0

NOTE: Field groupings may differ from those in reports published by Federal sponsors of the Survey of Earned Doctorates.

*Includes 20 respondents for whom doctoral field is unknown.

Source: NSF/NIH/NEH/USED/USDA, Survey of Earned Doctorates

APPENDIX TABLE A-7. Institutions granting research doctorates, by major field, 1998

State/Institution	1998 Total	Physics and Astronomy	Chemistry	Earth, Atmos., and Marine Sciences	Math and Computer Sciences	Engineering	Biosciences	Health Sciences	Agricultural Sci.	Psychology	Other Social Sciences	History	Eng. and Amer. Language and Lit.	Other Humanities	Education	Professional/Other Unknown Fields*
MICHIGAN (continued)																
Michigan State Univ	436	19	27	0	21	46	58	10	43	38	49	6	8	18	57	36
Michigan Tech Univ	51	6	3	1	0	22	7	0	7	0	0	0	0	4	0	1
Oakland Univ	23	1	0	0	0	12	4	0	0	0	0	0	0	0	6	0
Univ of Detroit Mercy	6	0	0	0	0	1	0	0	0	5	0	0	0	0	0	0
Univ of Michigan	687	27	40	14	41	175	57	45	6	38	66	15	18	74	40	31
Wayne State Univ	220	5	20	0	7	19	44	11	0	21	16	5	3	6	58	5
Western Michigan Univ	58	2	0	3	6	0	1	0	0	13	8	1	1	0	21	2
MINNESOTA	843	24	39	5	38	99	108	37	52	55	44	23	8	73	168	70
Luther Seminary	5	0	0	0	0	0	0	0	0	0	0	0	0	4	0	1
Mayo Graduate School	20	0	0	0	0	1	19	0	0	0	0	0	0	0	0	0
Univ of Minnesota-Minneapolis	724	24	39	5	38	98	89	30	52	44	44	23	8	65	125	40
Univ of St Thomas	20	0	0	0	0	0	0	0	0	0	0	0	0	0	20	0
Walden Univ	74	0	0	0	0	0	0	7	0	11	0	0	0	4	23	27
MISSISSIPPI	350	2	25	5	9	25	32	8	20	28	11	8	5	6	124	42
Delta State Univ	1	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0
Jackson State Univ	18	0	0	3	0	0	0	0	0	0	1	0	0	0	12	2
Mississippi State Univ	103	0	4	0	1	14	6	1	20	6	10	3	0	1	27	10
Reformed Theological Seminary	3	0	0	0	0	0	0	0	0	0	0	0	0	1	0	2
Univ of Mississippi	100	2	10	2	4	10	9	5	0	5	0	4	4	2	24	19
Univ of Mississippi-Med Ctr	13	0	0	0	0	0	13	0	0	0	0	0	0	0	0	0
Univ of Southern Mississippi	112	0	11	0	4	1	4	2	0	17	0	1	1	2	60	9
MISSOURI	780	21	50	15	17	109	117	23	23	73	45	6	16	64	145	56
Concordia Seminary	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1
Midwest Baptist Theol Sem	17	0	0	0	0	0	0	0	0	0	0	0	0	4	0	13
St. Louis Univ	128	0	0	2	0	0	0	14	12	0	21	2	0	7	9	49
Univ of Missouri-Columbia	275	8	5	5	7	30	32	8	22	24	21	2	7	15	65	24
Univ of Missouri-Kansas City	54	1	4	0	0	1	11	1	0	4	0	1	0	10	21	0
Univ of Missouri-Rolla	61	2	11	0	5	42	1	0	0	0	0	0	0	0	0	0
Univ of Missouri-St Louis	34	0	7	0	0	0	3	0	0	11	4	0	0	0	9	0
Washington Univ	210	10	23	8	5	36	56	2	1	13	18	3	2	26	1	6
MONTANA	97	6	6	2	4	4	24	0	12	10	0	0	0	0	28	1
Montana State Univ	50	6	5	0	4	4	8	0	3	0	0	0	0	0	20	0
Univ of Montana	47	0	1	2	0	0	16	0	9	10	0	0	0	0	8	1
NEBRASKA	314	8	10	4	14	14	42	10	47	25	24	3	13	12	60	28
Creighton Univ	2	0	0	0	0	0	2	0	0	0	0	0	0	0	0	0
Univ of Nebraska-Lincoln	282	8	9	4	14	14	20	7	47	25	22	3	13	12	56	28
Univ of Nebraska-Med Center	24	0	1	0	0	0	20	3	0	0	0	0	0	0	0	0
Univ of Nebraska-Omaha	6	0	0	0	0	0	0	0	0	0	2	0	0	0	4	0
NEVADA	86	3	6	17	0	9	13	1	0	12	8	1	5	0	9	2
Univ of Nevada-Las Vegas	14	1	0	0	0	1	1	0	0	0	2	0	2	0	5	2
Univ of Nevada-Reno	72	2	6	17	0	8	12	1	0	12	6	1	3	0	4	0
NEW HAMPSHIRE	119	10	16	5	8	10	31	0	7	6	4	5	4	3	10	0
Dartmouth College	45	5	10	1	4	6	17	0	0	2	0	0	0	0	0	0
Univ of New Hampshire	74	5	6	4	4	4	14	0	7	4	4	5	4	3	10	0
NEW JERSEY	830	44	38	21	56	139	112	6	17	57	70	36	26	124	47	37
Drew Univ	30	0	0	0	0	0	0	0	0	0	0	3	4	19	0	4
Farleigh Dickinson Univ	7	0	0	0	0	0	0	0	0	7	0	0	0	0	0	0
New Jersey Inst of Technology	31	0	1	2	4	24	0	0	0	0	0	0	0	0	0	0
Princeton Theol Seminary	13	0	0	0	0	0	0	0	0	0	0	2	0	7	0	4
Princeton Univ	264	28	12	5	19	47	17	0	0	4	33	23	9	62	1	4
Rutgers St Univ-New Brunswick	364	14	15	14	26	55	63	6	17	20	33	8	13	36	35	9
Rutgers St Univ-Newark	32	0	2	0	2	0	10	0	0	1	4	0	0	0	0	13
Seton Hall Univ	37	0	7	0	0	0	1	0	0	16	0	0	0	0	11	2
Stevens Inst of Technology	31	2	1	0	5	13	0	0	0	9	0	0	0	0	0	1
Univ of Med & Dent of NJ	21	0	0	0	0	0	21	0	0	0	0	0	0	0	0	0
NEW MEXICO	311	24	15	7	14	57	29	3	15	25	14	5	5	19	64	15
New Mexico Inst of Mining & Tech	13	1	0	6	0	6	0	0	0	0	0	0	0	0	0	0
New Mexico State Univ	94	9	9	0	8	13	9	0	15	5	0	0	0	4	15	7
Univ of New Mexico	204	14	6	1	6	38	20	3	0	20	14	5	5	15	49	8
NEW YORK	3,784	159	148	47	210	374	557	93	58	395	370	98	164	459	454	198
Adelphi Univ	46	0	0	0	0	0	0	16	0	23	0	0	0	0	0	7
Albany Medical College	13	0	0	0	0	0	13	0	0	0	0	0	0	0	0	0

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*Includes 20 respondents for whom doctoral field is unknown.

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APPENDIX TABLE A-7. Institutions granting research doctorates, by major field, 1998

State/Institution	1998 Total	Physics and Astronomy	Chemistry	Earth, Atmos., and Marine Sciences	Math and Computer Sciences	Engineering	Biosciences	Health Sciences	Agricultural Sci.	Psychology	Other Social	History	Eng. and Amer. Language and Lit.	Other Humanities	Education	Professional/Other Unknown Fields*
NEW YORK (continued)																
Alfred Univ	10	0	0	0	0	10	0	0	0	0	0	0	0	0	0	0
City U of NY-Grad Sch/U Ctr	333	15	14	6	16	18	44	7	0	51	48	6	21	60	10	17
Clarkson Univ	22	1	9	0	1	10	1	0	0	0	0	0	0	0	0	0
Columbia Univ	462	20	18	10	18	41	70	13	0	44	63	38	27	59	19	22
Columbia Univ-Teachers College	168	0	0	0	0	0	1	0	0	1	0	0	0	4	162	0
Cornell Univ	476	37	27	7	30	84	79	2	47	17	52	15	7	47	9	16
Cornell Univ Medical Campus	31	0	0	0	0	0	31	0	0	0	0	0	0	0	0	0
Fordham Univ	132	0	0	0	0	0	7	0	0	33	9	3	3	13	46	18
Hebrew Union College	5	0	0	0	0	0	0	0	0	0	0	0	0	5	0	0
Hofstra Univ	33	0	0	0	0	0	0	0	0	31	0	0	0	1	1	0
Jewish Theol Sem of America	12	0	0	0	0	0	0	0	0	0	0	1	0	8	1	2
The Juilliard School	16	0	0	0	0	0	0	0	0	0	0	0	0	16	0	0
Long Island Univ-Brooklyn Campus	10	0	0	0	0	0	0	0	0	10	0	0	0	0	0	0
Manhattan School of Music	9	0	0	0	0	0	0	0	0	0	0	0	0	9	0	0
New School for Social Research	61	0	0	0	0	0	0	0	0	24	32	0	0	5	0	0
New York Medical College	5	0	0	0	0	0	5	0	0	0	0	0	0	0	0	0
New York Univ	430	6	6	2	23	2	52	29	1	33	31	11	44	92	58	40
Pace Univ	5	0	0	0	0	0	0	0	0	0	0	0	0	0	0	5
Polytechnic Univ	39	2	4	0	5	28	0	0	0	0	0	0	0	0	0	0
Rensselaer Polytechnic Inst	128	7	5	2	23	76	2	0	0	0	1	0	0	4	0	8
Rockefeller Univ	24	1	0	0	0	0	22	0	0	0	0	0	0	0	0	1
St Johns Univ-Queens	48	0	0	0	0	0	4	2	0	19	1	3	7	1	11	0
State Univ of NY-Albany	174	6	7	3	12	0	15	2	1	28	16	2	11	16	40	15
State Univ of NY-Binghamton	81	0	6	0	15	6	3	0	0	7	29	1	4	7	2	1
State Univ of NY-Buffalo	294	5	18	6	10	40	45	13	0	29	15	5	17	28	52	11
State Univ of NY-Stony Brook	264	21	16	9	32	27	56	1	1	14	18	7	14	46	0	2
SUNY Coll-Environ Sci & Forestry	15	0	1	0	0	1	4	0	8	0	1	0	0	0	0	0
SUNY College of Optometry	1	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0
SUNY-Hlth Sci Ctr-Brooklyn	13	0	0	0	0	0	12	1	0	0	0	0	0	0	0	0
SUNY-Hlth Sci Ctr-Syracuse	6	0	0	0	0	0	6	0	0	0	0	0	0	0	0	0
Syracuse Univ	163	8	3	0	11	14	8	2	0	20	39	1	2	7	29	19
Union College	3	0	0	0	0	1	0	1	0	0	0	0	0	0	0	1
Union Theol Seminary	7	0	0	0	0	0	0	0	0	1	0	0	0	1	0	5
Univ of Rochester	219	30	14	2	14	16	51	4	0	10	15	5	7	30	14	7
Yeshiva Univ	26	0	0	0	0	0	25	0	0	0	0	0	0	0	0	1
NORTH CAROLINA	1,084	33	69	23	69	143	204	59	35	66	94	18	39	63	131	38
Duke Univ	243	13	11	8	8	31	65	0	1	13	32	7	19	29	0	6
East Carolina Univ Sch of Med	15	0	0	0	0	0	12	0	0	0	0	0	0	0	3	0
North Carolina A & T	3	0	0	0	0	3	0	0	0	0	0	0	0	0	0	0
North Carolina St U-Raleigh	322	10	8	7	30	94	39	2	33	11	22	0	0	0	65	1
U of N Carolina-Chapel Hill	391	8	45	8	31	15	62	53	1	23	39	11	14	25	25	31
U of N Carolina-Greensboro	78	0	0	0	0	0	1	4	0	19	1	0	6	9	38	0
Wake Forest Univ	32	2	5	0	0	0	25	0	0	0	0	0	0	0	0	0
NORTH DAKOTA	85	1	6	1	4	4	21	2	9	12	0	2	1	1	21	0
North Dakota State Univ	31	0	4	0	4	1	12	2	8	0	0	0	0	0	0	0
Univ of North Dakota	54	1	2	1	0	3	9	0	1	12	0	2	1	1	21	0
OHIO	1,863	66	122	15	69	305	250	84	25	178	75	51	39	133	341	110
Air Force Inst of Technology	29	4	0	0	2	23	0	0	0	0	0	0	0	0	0	0
Bowling Green State Univ	93	0	9	0	8	0	7	1	0	12	5	3	8	17	13	10
Case Western Reserve Univ	177	6	14	0	7	46	33	17	0	12	7	6	7	4	0	18
Cleveland State Univ	33	0	6	0	0	6	3	0	0	0	1	0	0	0	11	6
Hebrew Union College	5	0	0	0	0	0	0	0	0	0	0	0	0	3	0	0
Kent State Univ	156	7	4	2	9	0	11	2	0	38	6	3	6	2	53	13
Medical College of Ohio-Toledo	23	0	0	0	0	0	22	1	0	0	0	0	0	0	0	0
Miami Univ	51	0	3	0	0	0	9	0	0	16	1	4	2	1	15	0
Ohio State Univ	664	32	34	10	32	89	99	34	25	38	42	20	9	58	108	34
Ohio Univ	133	5	4	0	3	11	12	1	0	16	1	5	2	8	50	15
Univ of Akron	127	2	31	0	0	42	1	0	0	20	4	2	0	0	23	2
Univ of Cincinnati	267	7	13	3	2	61	42	19	0	19	8	1	3	37	41	11
Univ of Dayton	27	1	0	0	0	15	1	0	0	0	0	0	0	0	10	0
Univ of Toledo	63	2	4	0	2	11	2	9	0	6	0	5	2	3	16	1
Wright State Univ	14	0	0	0	4	1	8	0	0	1	0	0	0	0	0	0
Youngstown State	1	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0
OKLAHOMA	405	4	12	20	10	57	41	6	21	31	19	2	10	41	97	34
Oklahoma State Univ	197	2	2	4	5	21	16	0	21	12	7	1	4	30	61	11
Univ of Oklahoma	187	2	10	12	3	27	23	6	0	17	12	1	4	11	36	23
Univ of Tulsa	21	0	0	4	2	9	2	0	0	2	0	0	2	0	0	0
OREGON	427	17	19	18	17	38	88	24	37	18	30	5	15	24	63	14

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APPENDIX TABLE A-7. Institutions granting research doctorates, by major field, 1998

State/Institution	1998 Total	Physics and Astronomy	Chemistry	Earth, Atmos., and Marine Sciences	Math and Computer Sciences	Engineering	Biosciences	Health Sciences	Agricultural Sci.	Psychology	Other Social Sciences	History	Eng. and Amer. Language and Lit.	Other Humanities	Education	Professional/Other Unknown Fields*
OREGON (continued)																
Oregon Grad Inst of Sci & Tech	13	2	0	0	2	6	3	0	0	0	0	0	0	0	0	0
Oregon Health Sciences Univ	29	0	0	0	0	0	24	3	0	1	0	0	0	1	0	0
Oregon State Univ	187	3	12	11	8	23	42	12	37	2	7	0	0	0	29	1
Portland State Univ	38	2	2	2	2	9	1	0	0	2	4	0	0	0	10	4
Univ of Oregon	160	10	5	5	5	0	18	9	0	13	19	5	15	23	24	9
PENNSYLVANIA	2,234	62	100	17	111	404	252	75	27	165	188	46	51	206	369	161
Allegheny Univ. of Health Sciences	24	1	0	0	0	0	2	0	0	2	1	0	0	12	0	6
Bryn Mawr College	204	8	4	1	41	99	5	0	0	3	14	4	0	6	0	19
Carnegie Mellon Univ	52	3	2	0	3	33	2	0	0	4	0	0	0	0	1	4
Drexel Univ	14	0	4	0	0	0	1	0	0	2	0	0	1	3	0	3
Duquesne Univ	46	0	0	0	0	0	0	0	0	1	2	0	17	13	12	1
Indiana Univ of Pennsylvania	96	6	2	2	6	35	5	0	0	7	2	2	9	1	17	2
Lehigh Univ	30	0	0	0	0	0	12	2	0	16	0	0	0	0	0	0
Pennsylvania State Univ	597	24	29	11	10	144	59	18	26	42	31	5	7	27	128	36
Philadelphia Coll. of Pharmacy & Sci.	10	0	4	0	0	0	4	2	0	0	0	0	0	0	0	0
Temple Univ	292	2	9	0	12	2	20	9	0	47	25	13	3	36	90	24
Thomas Jefferson Univ	19	0	0	0	0	0	19	0	0	0	0	0	0	0	0	0
Univ of Pennsylvania	436	15	20	1	18	46	78	12	0	16	71	16	10	65	33	35
Univ of Pittsburgh	373	3	22	2	21	45	45	29	1	25	42	5	4	38	69	22
Villanova Univ	5	0	4	0	0	0	0	0	0	0	0	0	0	0	1	0
Westminster Theol Seminary	15	0	0	0	0	0	0	0	0	0	0	1	0	5	0	9
Widener Univ	21	0	0	0	0	0	0	3	0	0	0	0	0	0	18	0
PUERTO RICO	103	0	3	2	0	1	6	0	0	56	0	4	0	1	30	0
Caribbean Ctr for Adv Studies	37	0	0	0	0	0	0	0	0	36	0	0	0	1	0	0
Inter Amer U PR-Metro Campus	11	0	0	0	0	0	0	0	0	0	0	0	0	0	11	0
Univ of Puerto Rico - Rio Piedras	51	0	3	0	0	0	5	0	0	20	0	4	0	0	19	0
Univ of Puerto Rico-Mayaguez	4	0	0	2	0	1	1	0	0	0	0	0	0	0	0	0
RHODE ISLAND	249	23	20	22	24	17	20	4	3	22	25	9	11	44	0	5
Brown Univ	174	20	12	8	22	12	15	0	0	7	24	9	6	39	0	0
Salve Regina Univ	3	0	0	0	0	0	0	0	0	0	0	0	0	3	0	0
Univ of Rhode Island	72	3	8	14	2	5	5	4	3	15	1	0	5	2	0	5
SOUTH CAROLINA	369	4	24	10	16	37	68	25	8	17	25	5	16	20	69	25
Clemson University	101	2	10	0	4	29	30	0	8	0	5	0	0	0	9	4
Medical Univ of South Carolina	24	0	3	0	0	0	20	1	0	0	0	0	0	0	0	0
South Carolina State Univ	1	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0
Univ of South Carolina	243	2	11	10	12	8	18	24	0	17	20	5	16	20	59	21
SOUTH DAKOTA	70	0	2	0	0	2	6	0	2	8	4	0	0	0	46	0
S Dakota Sch of Mines & Tech	2	0	0	0	0	2	0	0	0	0	0	0	0	0	0	0
South Dakota State Univ	10	0	2	0	0	0	2	0	2	0	4	0	0	0	0	0
Univ of South Dakota	58	0	0	0	0	0	4	0	0	8	0	0	0	0	46	0
TENNESSEE	643	13	17	3	24	63	109	22	4	48	52	13	18	50	156	51
East Tennessee State Univ	21	0	0	0	0	0	5	0	0	0	0	0	0	0	16	0
Meharry Medical College	15	0	0	0	0	0	14	1	0	0	0	0	0	0	0	0
Mid-America Baptist Theol Sem	8	0	0	0	0	0	0	0	0	0	0	0	0	4	0	4
Middle Tennessee State Univ	10	0	1	0	0	0	0	0	0	0	2	2	1	2	2	0
Tennessee State Univ	35	0	0	0	0	0	0	0	0	6	1	0	0	0	26	2
Tennessee Technological Univ	3	0	0	0	0	3	0	0	0	0	0	0	0	0	0	0
Univ of Memphis	87	0	2	0	2	7	5	1	0	18	4	5	0	2	26	15
Univ of Tennessee-Knoxville	237	8	6	3	8	34	32	12	4	14	26	2	10	8	45	25
Univ of Tennessee-Memphis	12	0	0	0	0	0	9	3	0	0	0	0	0	0	0	0
Vanderbilt Univ	215	5	8	0	14	19	44	5	0	10	19	4	7	34	41	5
TEXAS	2,736	89	122	63	120	407	388	108	66	213	179	54	61	211	473	182
Baylor College of Medicine	44	0	0	0	0	0	43	1	0	0	0	0	0	0	0	0
Baylor Univ	33	0	0	0	1	0	8	0	0	1	3	0	0	7	13	0
Dallas Theological Seminary	6	0	0	0	0	0	0	0	0	0	0	0	0	1	0	5
Lamar Univ	2	0	0	0	0	1	0	0	0	0	0	0	0	0	0	1
Rice Univ	115	5	4	9	13	33	7	0	0	2	19	5	7	11	0	0
Sam Houston State Univ	7	0	0	0	0	0	0	0	0	0	7	0	0	0	0	0
Southern Methodist Univ	46	2	0	2	7	16	2	0	0	4	8	0	0	5	0	0
Southwestern Baptist Theol Sem	36	0	0	0	0	0	0	0	0	3	0	0	0	15	1	17
Stephen F Austin St Univ	1	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0
Texas A&M Univ-College Station	528	12	39	17	31	115	74	8	55	29	47	8	9	2	58	24
Texas A&M Univ-Commerce	49	0	0	0	0	0	0	0	0	5	0	0	0	0	44	0
Texas A&M Univ-Kingsville	28	0	0	0	0	0	0	0	2	0	0	0	0	0	26	0
Texas Christian Univ	24	3	4	0	0	0	1	0	0	1	0	8	4	3	0	0
Texas Southern Univ	21	0	0	0	0	0	0	0	0	0	0	0	0	0	21	0

NOTE: Field groupings may differ from those in reports published by Federal sponsors of the Survey of Earned Doctorates.

*Includes 20 respondents for whom doctoral field is unknown.

Source: NSF/NIH/NEH/USED/USDA, Survey of Earned Doctorates

APPENDIX TABLE A-7. Institutions granting research doctorates, by major field, 1998

State/Institution	1998 Total	Physics and Astronomy	Chemistry	Earth, Atmos., and Marine Sciences	Math and Computer Sciences	Engineering	Biosciences	Health Sciences	Agricultural Sci.	Psychology	Other Social Sciences	History	Eng. and Amer. Language and Lit.	Other Humanities	Education	Professional/Other/Unknown Fields*
TEXAS (continued)																
Texas Tech Univ	168	5	7	1	7	25	16	0	8	32	5	4	2	10	28	18
Texas Woman's Univ	88	0	0	0	0	0	4	38	0	17	2	0	0	0	16	11
Univ of Dallas	4	0	0	0	0	0	0	0	0	1	1	0	2	0	0	0
Univ of Houston	183	8	11	1	7	2	13	2	0	27	15	4	11	6	65	11
Univ of North Texas	160	3	12	2	13	1	7	0	0	30	4	2	5	16	50	15
Univ of North Texas-Hlth Sci Ctr	10	0	0	0	0	0	9	0	0	0	0	0	0	0	1	0
Univ of St. Thomas	3	0	0	0	0	0	0	0	0	0	0	0	0	3	0	0
Univ of Texas-Arlington	97	2	2	0	4	35	4	0	0	3	6	2	1	16	0	22
Univ of Texas-Austin	834	39	38	20	32	160	58	38	0	40	58	21	20	110	145	55
Univ of Texas-Dallas	50	10	4	6	4	6	8	1	0	2	3	0	0	2	0	4
Univ of Texas-El Paso	14	0	0	4	0	8	0	0	0	2	0	0	0	0	0	0
U Tex-Hlth Sci Ctr-Houston	66	0	0	0	1	0	46	14	0	0	1	0	0	0	4	0
U Tex-Hlth Sci Ctr-San Antonio	24	0	0	0	0	0	20	4	0	0	0	0	0	0	0	0
U Tex-Med Branch-Galveston	30	0	0	0	0	0	24	2	0	0	0	0	0	4	0	0
U Tex-Southwestern Med Ctr	65	0	1	1	0	5	44	0	0	14	0	0	0	0	0	0
UTAH	353	10	28	6	20	66	51	14	9	40	31	3	2	12	42	19
Brigham Young Univ	63	1	5	0	5	11	4	0	1	19	3	0	0	0	14	0
Univ of Utah	200	5	21	5	13	37	32	13	0	9	12	3	2	12	19	17
Utah State Univ	90	4	2	1	2	18	15	1	8	12	16	0	0	0	9	2
VERMONT	62	0	2	0	2	9	19	0	1	15	0	0	0	3	11	0
Middlebury College	3	0	0	0	0	0	0	0	0	0	0	0	0	3	0	0
Univ of Vermont	59	0	2	0	2	9	19	0	1	15	0	0	0	0	11	0
VIRGINIA	998	36	35	22	64	157	131	34	28	82	54	23	12	34	238	48
College of William & Mary	43	8	3	5	3	0	1	0	0	0	0	3	0	2	18	0
George Mason Univ	115	7	1	1	28	8	2	9	2	22	12	1	0	1	20	1
Hampton Univ	4	4	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Old Dominion Univ	74	2	0	4	4	14	19	4	0	15	2	0	0	0	8	2
Presbyterian Schl of Christ Educ	3	0	0	0	0	0	0	0	0	0	0	0	0	0	3	0
Regent Univ	6	0	0	0	0	0	0	0	0	0	0	0	0	0	0	6
Union Theol Seminary	5	0	0	0	0	0	0	0	0	0	0	0	0	2	0	3
Univ of Virginia	303	12	14	9	12	41	42	4	0	25	24	17	12	29	55	7
Virginia Commonwealth Univ & Med Coll	86	0	3	0	0	1	45	14	0	4	0	0	0	0	12	7
Virginia Polytech Inst & St Univ	359	3	14	3	17	93	22	3	26	16	16	2	0	0	122	22
WASHINGTON	694	29	31	30	32	86	104	32	32	46	49	14	13	60	100	36
Gonzaga Univ	13	0	0	0	0	0	0	0	0	0	0	0	0	0	13	0
Seattle Pacific Univ	4	0	0	0	0	0	0	0	0	0	0	0	0	0	4	0
Seattle Univ	30	0	0	0	0	0	0	0	0	0	0	0	0	0	30	0
Univ of Washington	478	23	24	29	27	65	68	27	18	29	33	11	11	55	29	29
Washington State Univ	169	6	7	1	5	21	36	5	14	17	16	3	2	5	24	7
WEST VIRGINIA	151	3	3	2	7	25	28	9	10	17	5	2	1	2	37	0
Marshall Univ	4	0	0	0	0	0	4	0	0	0	0	0	0	0	0	0
West Virginia Univ	147	3	3	2	7	25	24	9	10	17	5	2	1	2	37	0
WISCONSIN	938	36	51	17	57	135	147	34	38	51	103	30	22	78	86	53
Marquette Univ	58	0	2	0	0	17	2	0	0	3	0	5	2	12	15	0
Medical College of Wisconsin	17	0	0	1	0	0	14	2	0	0	0	0	0	0	0	0
Univ of Wisconsin-Madison	760	34	44	15	46	109	123	24	38	37	86	25	11	62	64	42
Univ of Wisconsin-Milwaukee	103	2	5	1	11	9	8	8	0	11	17	0	9	4	7	11
WYOMING	63	4	7	11	7	3	10	0	3	9	0	0	0	0	9	0
Univ of Wyoming	63	4	7	11	7	3	10	0	3	9	0	0	0	0	9	0

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*Includes 20 respondents for whom doctoral field is unknown.

Source: NSF/NIH/NEH/USED/USDA, Survey of Earned Doctorates

APPENDIX TABLE A-7. Top 50 doctorate-granting institutions, 1998

Rank	Institution	Number	Rank	Institution	Number
1.	University of Texas-Austin	834	26.	University of North Carolina-Chapel Hill	391
2.	University of Wisconsin-Madison	760	27.	Indiana University-Bloomington	380
3.	University of California-Berkeley	748	28.	University of Colorado at Boulder	375
4.	University of Minnesota Twin Cities	724	29.	University of Pittsburgh-Main Campus	373
5.	University of Illinois-Urbana/Champaign	706	30.	Northwestern University	371
6.	University of Michigan-Ann Arbor	687	31.	University of Georgia	369
7.	Ohio State University-Main Campus	664	32.	University of Chicago	368
8.	University of California-Los Angeles	605	33.	Rutgers University-New Brunswick	364
9.	Pennsylvania State University-Main Campus	597	34.	Johns Hopkins University	363
10.	Stanford University	595	35.	Yale University	362
11.	Harvard University	560	36.	Virginia Polytechnic Institute & State	359
12.	Nova Southeastern University	543	37.	University of California-Davis	337
13.	Texas A&M University-College Station	528	38.	CUNY-Grad School & University Center	333
14.	Purdue University-Main Campus	496	39.	University of Iowa	327
15.	Massachusetts Institute of Technology	492	40.	North Carolina State University-Raleigh	322
16.	University of Washington	478	41.	Florida State University	306
17.	University of Maryland-College Park	476	42.	University of Virginia-Main Campus	303
17.	Cornell University-Endowed Colleges	476	43.	Iowa State University	300
19.	Columbia University in the City of New York	462	44.	University of Massachusetts-Amherst	298
20.	University of Florida	457	45.	SUNY at Buffalo	294
21.	Michigan State University	436	46.	Arizona State University-Main Campus	292
21.	University of Pennsylvania	436	46.	Temple University	292
23.	New York University	430	48.	University of Kansas-Main Campus	287
24.	University of Arizona	411	49.	University of Nebraska-Lincoln	282
25.	University of Southern California	403	50.	Boston University	278

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